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**Memoirs
of the
American Entomological Institute**

Volume 71

SYNOPSIS AND CLASSIFICATION OF FORMICIDAE

by

Barry Bolton

The American Entomological Institute
3005 SW 56th Avenue
Gainesville, FL 32608-5047

2003

ISBN: 1-887988-15-7

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TABLE OF CONTENTS

Introduction	2
Systematic list of higher taxa	4
Key to extant subfamilies	11
TAXONOMY AND SYSTEMATICS	14
Family Formicidae	15
formicomorph subfamilies	16
Subfamily Aneuretinae	18
Subfamily Dolichoderinae	18
Subfamily Formicinae	20
myrmeciomorph subfamilies	28
Subfamily Myrmeciinae	29
Subfamily Pseudomyrmecinae	30
dorylomorph subfamilies	31
Subfamily Cerapachyinae	32
Subfamily Ecitoninae	34
Subfamily Leptanilloidinae	35
Subfamily Aenictinae	36
Subfamily Dorylinae	36
Subfamily Aenictogitoninae	37
leptanillomorph subfamilies	38
Subfamily Apomyrminae	39
Subfamily Leptanillinae	39
poneromorph subfamilies	40
Subfamily Amblyoponinae	41
Subfamily Ponerinae	42
Subfamily Ectatomminae	45
Subfamily Heteroponerinae	46
Subfamily Paraponerinae	47
Subfamily Proceratiinae	48
myrmicomorph subfamilies	50
Subfamily Agroecomyrmecinae	51
Subfamily Myrmicinae	52
extinct subfamilies	73
Subfamily *Armaniinae	73
Subfamily *Sphecomyrminae	74
Subfamily *Brownimeciinae	75
Subfamily *Formiciinae	75
Taxa <i>incertae sedis</i> and exclusions from Formicidae	76
SYNOPSIS OF CLASSIFICATION	77
Family Formicidae	77
formicomorph subfamilies	79
Subfamily Aneuretinae	79
Subfamily Dolichoderinae	80
Subfamily Formicinae	93
myrmeciomorph subfamilies	131
Subfamily Myrmeciinae	131
Subfamily Pseudomyrmecinae	134
dorylomorph subfamilies	137
Subfamily Cerapachyinae	137
Subfamily Ecitoninae	142
Subfamily Leptanilloidinae	145

Subfamily Aenictinae	146
Subfamily Dorylinae	147
Subfamily Aenictogitoninae	150
leptanillomorph subfamilies	150
Subfamily Apomyrminae	150
Subfamily Leptanillinae	151
poneromorph subfamilies	153
Subfamily Amblyoponinae	153
Subfamily Ponerinae	156
Subfamily Ectatomminae	172
Subfamily Heteroponerinae	176
Subfamily Paraponerinae	178
Subfamily Proceratiinae	178
myrmicomorph subfamilies	181
Subfamily Agroecomyrmecinae	181
Subfamily Myrmicinae	182
extinct subfamilies	259
Subfamily *Armaniinae	259
Subfamily *Sphecomyrminae	260
Subfamily *Brownimeciinae	262
Subfamily *Formiciinae	262
Taxa <i>incertae sedis</i> and exclusions from Formicidae	263
Appendix 1 (adjustments at genus rank)	267
Appendix 2 (aspects of morphology)	274
Appendix 3 (synopsis of plesiomorphies)	288
Appendix 4 (appearance in fossil record)	290
References	293
Index of family-group names	358
Index of genus-group names	361

SYNOPSIS AND CLASSIFICATION OF FORMICIDAE

Barry Bolton

Department of Entomology, The Natural History Museum,
Cromwell Road, London SW7 5BD, U.K.

SYNOPSIS

A new synoptic classification of Formicidae is presented which divides the family into 21 extant and 4 extinct subfamilies, the former arranged in six subfamily groups. New diagnoses of all family-group names are given together with notes and comments on their taxonomy, systematics and status. A taxonomic history and bibliography of all family-group and genus-group names is presented, indicating changes in status and placement through time, together with a complete list of major taxonomic papers that have contributed to our understanding of each taxon. A series of appendices deal with necessary adjustments in genus rank taxonomy, some aspects of morphology, formicid plesiomorphic states and appearance of taxa in the fossil record. At subfamily rank taxonomic changes include the creation of two new taxa (Heteroponerinae and *Brownimeciinae), revived status of one (Amblyoponinae) and new status for four (Agroecomyrmecinae, Ectatomminae, Paraponerinae and Proceratiinae). At tribe rank there are six new taxa (Ankylomyrmini, *Haidomyrmecini, Lenomyrmecini, Liomyrmecini, Notostigmatini and Paratopulini), revived status for Myrmecorhynchini and new status for Probolomyrmecini. New synonymy at tribe rank includes Ponerini (= Pseudoneoponerini), Gesomyrmecini (= Santschiellini, = *Sicelomyrmicini), Formicoxenini (= Ochatomyrmicini, = Solenomyrmini), Plagiolepidini (= Brachymyrmicini, = Bregmatomyrmini, = Myrmelachistini, = Prenolepidii) and Solenopsidini (= *Hypopomyrmecini, = Pheidologitini). New genus rank status and synonymy includes *Anoplolepis* (= *Zealleyella*), *Aphaenogaster* (= **Sinaphaenogaster*), *Camponotus* (*Colobopsis*) (= *Dolophra*), *Cerapachys* (= *Yunodorylus*), *Gauromyrmex* (revived status), *Monomorium* (= *Pharaophanes*), *Nesomyrmex* (revived status) (= *Caulomyrma*, = *Goniothorax*, = *Ireneopone*, = *Limnomyrmex*, = *Meia*, = *Tetramyrma*), *Oligomyrmex* (= *Neoblepharidatta*), *Plagiolepis* (= *Anacantholepis*), *Tapinolepis* (new status) (= *Mesanooplolepis*), *Temnothorax* (revived status) (= *Antillaemyrmex*, = *Croesomyrmex*, = *Dichothorax*, = *Icothorax*, = *Macromischa*, = *Myrafant*, = *Myrmammophilus*), *Tetramorium* (= *Apomyrmex*), *Stereomyrmex* (= *Willowsiella*). A single new name is proposed, **Zhangidris*, a replacement for **Heteromyrmex* Zhang (1989), which is preoccupied by *Heteromyrmex* Wheeler (1920).

INTRODUCTION

Synoptic classifications on a world wide basis have a long but patchy history in myrmecology. The earliest author to attempt a synthesis of the world fauna (Mayr, 1863) listed all the genera and species described to that time merely as Formicidae, without any attempt at subdivision of the group. The work was really the first alphabetical catalogue of ants, not a classification. In the same year Roger (1863b) produced a similar list that grouped the genera into subfamilies, but in a way that now seems strange. For instance, his subfamily Formicidae contained both Formicinae and Dolichoderinae, and his subfamily Poneridae held a wide diversity of forms. His use of the suffix -idae to designate a subfamily appears odd as its use is now formally restricted to taxa of family rank, but the values of suffixes were not fixed until about 1895, so in early literature it frequently occurs where we would now expect to see the subfamily suffix -inae. Roger's classification does not mention what characters he had in mind to define the subfamilies. This was rectified by Mayr (1865), who gave definitions for the subfamilies he recognised, and diagnosed each genus that he considered to fall within each subfamily; the first real attempt at a universal synthesis of the ant fauna.

From the 1870s to the early 1900s two authors, Emery and Forel, greatly expanded and refined the definitions of formicid subgroups, laying the foundations for the classification that extends to the present. Emery's major contributions in this period included the division of Myrmicinae into genus groups (Emery, 1877a), which later provided many of our modern tribes (Emery, 1914a), and the production of a synoptic classification that contained diagnoses of subfamilies and tribes with lists of the genera they contained (Emery, 1895e), followed the next year by a key (Emery, 1896b). Forel (1878) detailed a classification that contained five subfamilies and later (Forel, 1893a) produced diagnoses of subfamilies and tribes with lists of included genera. The termination of this period saw the production of W.M. Wheeler's (1910d) synoptic classification, with diagnoses of all main groups and lists of the genera they contained, and Forel's (1917, 1921) grouped list of higher ant taxa and synopsis of subfamilies. Other studies within the period were Emery's (1901a) classification of ponerines and dorylines, the detailed catalogue of Dalla Torre (1893) and the idiosyncratic classification of ants produced by Ashmead (1905b, 1906).

In 1910 Emery published the first part of his huge contribution in the *Genera Insectorum* series that dealt with ants. This monumental undertaking, which included a full classification with diagnoses of all ranks down to genus, together with keys and catalogues, spanned fifteen years and appeared in seven parts (Emery, 1910b, 1911b, 1913a, 1921b, 1922c, 1924, 1925b), each dealing with one or more subfamilies. Its impact was immediate and enduring, and more or less fixed ideas about the classification of ants for many years. During the *Genera Insectorum* period W.M. Wheeler (1920, 1922a) issued his own equally famous classification, with keyed diagnoses for subfamilies, tribes and genera. The authoritative works of these two authors were mutually supportive and tended to reinforce each other by agreeing on most points. Indeed, the two systems are so intertwined that Brown (1958b) and others refer to them together as the Emery-Wheeler classification.

So great was the impact of this joint system that the next thirty years or so produced very little in the way of higher classification, or even of correction or change in the parts of the Emery-Wheeler classification that were, even at that time, demonstrably weak. It was as if myrmecologists had been completely overawed by it and had lapsed into silence. Subfamily rank classifications produced by Clark (1951) and Bernard (1951) were somewhat strange. The first introduced a number of subfamily names in the form of a key, the second more or less followed the Emery-Wheeler system but treated the subfamilies as family rank. Although Clark's key contained some good ideas it was not widely accepted and Bernard's taxon inflation was mostly and wisely ignored. It was left to Brown (1954b) to reassess the status of the various ant subfamilies and this famous paper marked the beginning of modern investigations of ant classification and phylogeny.

The last quarter of the twentieth century saw a small deluge of various forms of synopses of subfamilies, genera, and sometimes tribes. These either took the form of lists without characters cited to diagnose the taxa (Kempf, 1972a; Brown, 1973b; Wheeler,

G.C. & Wheeler, J. 1985; Dlussky & Fedoseeva, 1988), or diagnosed and keyed just the subfamilies (Wheeler, G.C. & Wheeler, J. 1972; Brothers & Fennimore, 1993) or had a key to subfamilies with lists of included genera (Snelling, 1981), or presented subfamily and genus keys with divisions of the former into tribes that were not, however, keyed or characterised (Hölldobler & Wilson, 1990; Bolton, 1994). Together with these appeared a series of cladistically based papers aimed at the phylogeny or classification of either the whole family or a part of it, which served to characterise a number of higher taxa more accurately than had previously been the case (Taylor, 1978a; Bolton, 1990a,b,c; Ward, 1990, 1994; Baroni Urbani, Bolton & Ward, 1992; Shattuck, 1992b).

The overall effect of all this work, spanning nearly 150 years, has been to diagnose the ant subfamilies more accurately, and incidentally to increase their number as new characters have been discovered and compared across the family, and their significance assessed. For most of the history of the family the number of subfamilies was restricted to the five outlined by Forel (1878). Prior to this, in what may be called the archaic period, there had been a number of other groups regarded as subfamilies or separate families by various authors, but they did not stand the test of time and were absorbed into Forel's system. The number of subfamilies had increased to seven by the time of Wheeler, W.M. (1922a) and 50 years later had reached 10 extant and 1 extinct (Wheeler, G.C. & Wheeler, J. 1972). Bolton (1994) recorded 16 extant and 4 extinct subfamilies and this contribution sees the number rise to 21 and 4 respectively.

The aim of this study is to provide a synopsis of our current understanding of the classification of the Formicidae and to show the state of the subject at the present time. It presents a synthesis of the characters employed to define taxa of higher rank than genus within the family, and to indicate aggregations of taxa. The main objective has been the establishment of identity rather than the postulation of phylogenetic hypotheses, and has concentrated on the accurate definition of subfamilies by the indication of autapomorphic characters that diagnose and isolate them, and by investigation of possible synapomorphic characters which may show the way they are related or grouped. This has led to the separation of a number of groups that were not formerly regarded as subfamilies but whose comparative morphology now suggests that they require equivalent grade.

Within each of the larger subfamilies, where subdivision into tribes has been traditional, an effort has been made to define the tribes more accurately than has previously been achieved, and to indicate tribe-rank autapomorphies where possible. These efforts have met with varying degrees of success: in some cases the results have been equivocal but in others they have produced the first recent definitions of the tribes. It has, however, become obvious that detailed and intensive work on isolated subfamilies or tribe groups is going to be essential before the problem can be resolved with a high degree of satisfaction and a phylogeny attempted.

The synopsis begins with an up-to-date list of higher taxa (living and extinct) that indicates their contents and synonyms, and the way they are grouped. It is followed by a new key to subfamilies, which is not an "easy" key as it requires some dissociation of sclerites or dissection. The second main section outlines and discusses the taxonomy and systematics of Formicidae, laying out the reasons for, and the characters that underpin, the proposed classification; weaknesses in the classification are pointed out. The third section, which is the largest, gives an historical review of each family-group and genus-group name in Formicidae. This takes the form of a taxonomic history where for each name earlier authors' opinions of the status and placement of the taxon are given in reference form. Each currently recognised taxon has its taxonomic bibliography appended, which lists all the papers that have contributed to its understanding. A series of appendices, that complement and expand upon various points made in the text, concludes the survey.

SYSTEMATIC LIST OF HIGHER TAXA

The list includes all formicid taxa that currently have the rank of subfamily, tribe, genus or subgenus, together with their junior synonyms where they occur. The main entries for the subfamilies, and the tribes of any particular subfamily, are listed in the order they appear in the text; genera that comprise any subfamily or tribe are listed alphabetically and currently valid names are in *bold italic lower case*. Following usual taxonomic practice, junior synonyms appear with their original orthography; senior and valid names conform to the 4th edition of the International Code of Zoological Nomenclature (1999). Fossil taxa are prefixed by the star-sign "*".

Family FORMICIDAE

The formicomorph subfamilies

Aneuretinae, Dolichoderinae and Formicinae.

Subfamily ANEURETINAE

Tribe Aneuretini

Genera: **Aneuretellus*; *Aneuretus*; **Mianeuretus*; **Paraneuretus*; **Protaneuretus*.

Incertae sedis in Aneuretinae: **Burmomyrma*.

Subfamily DOLICHODERINAE

Tribe Dolichoderini [= Anonychomyrmini, = Axinidriini, = Leptomyrmicini, = Liometopini, = **Miomyrmicini*, = **Pityomyrmecini*, = Tapinomini, = **Zherichiniini*].

Genera: **Alloiomma*; *Amyrmex*; *Anillidris*; *Anonychomyrma*; **Asymphylomyrmex*; *Axinidris*; *Azteca* (= *Aztecum*); *Bothriomyrmex* (= *Chronoxenus*); **Ctenobethylus*; *Doleromyrma*; *Dolichoderus* (= *Acanthoclinea*, = *Diabolus*, = *Diceratoclinea*, = *Hypoclinea*, = *Karawajewella*, = *Monacis*, = *Monoceratoclinea*); *Dorymyrmex* (= *Ammomyrma*, = *Araucomyrmex*, = *Biconomyrma*, = *Conomyrma*, = *Psammomyrma*, = *Spinomyrma*); *Ecphorella*; **Elaeomyrmex*; **Elaphrodites*; **Emplastus* subfamily transfer; **Eotapinoma*; **Eurymyrmex*; *Forelius* (= *Neoforelius*); *Froggattella*; *Iridomyrmex*; **Kotshkorkia*; *Leptomyrmex*; **Leptomyrmula*; *Linepithema*; *Liometopum*; *Loweriella*; **Miomyrmex*; *Ochetellus*; *Papyrius*; **Petraeomyrmex*; *Philidris*; **Pityomyrmex*; **Protazteca*; *Tapinoma* (= *Micromyrma*, = *Neoclystopsenella*, = *Semonius*, = *Tapinoptera*, = *Zatapinoma*); *Technomyrmex* (= *Aphantolepis*, = *Engramma*); *Turneria*; **Zherichinius*.

Subfamily FORMICINAE

lasiine tribe group

Tribe Lasiini [= *Acanthomyopsini*].

Genera: *Acanthomyops*; *Acropyga* (subgenera: *Acropyga*, *Atopodon*, *Malacomyrma*, *Rhizomyrma*) tribal transfer; *Anoplolepis* (= *Zealleyella* syn. n. [Appendix 1.1]) tribal transfer; *Cladomyrma* tribal transfer; *Lasiophanes* tribal transfer; *Lasius* (subgenera: *Austrolasius*, *Cautolasius*, *Chthonolasius*, *Dendrolasius*, *Lasius* (= *Donisthorpea*)); *Myrmecocystus* (= *Endiodictes*, = *Eremnocystus*); *Prolasius* tribal transfer; *Stigmatoceros* (= *Acrostigma*, = *Campostigmatoceros*, = *Chariostigmatoceros*, = *Cyrtostigmatoceros*, = *Hagiostigmatoceros*, = *Pseudostigmatoceros*) tribal transfer; *Teratomyrmex*.

Tribe Plagirolepidini [= *Brachymyrmecini* syn. n., = *Bregmatomyrminii* syn. n., = *Myrmelachistini* syn. n., = *Prenolepidii* syn. n.].

Genera: *Agraulomyrmex*; *Aphomyrmex* (= *Aphomyrmex*) tribal transfer; *Brachymyrmex* (= *Brysha*) tribal transfer; *Bregmatomyrma* (= *Bregmatomyrmex*) tribal transfer; *Euprenolepis* (= *Chapmanella*) tribal transfer; *Lepisiota* (= *Acantholepis*, = *Achantilepis*, = *Baroniurbania*, = *Pseudacantholepis*); *Myrmelachista* (= *Decamera*, = *Hincksidris*, = *Neaphomus*)

tribal transfer; *Paratrechina* (= *Andragnathus*, = *Nylanderia*, = *Paraparatrechina*) **tribal transfer; *Petalomyrmex*** **tribal transfer; *Plagiolepis*** (= *Anacantholepis* **syn. n.** [Appendix 1.2], = *Aporomyrmex*, = *Paraplagiolepis*, = **Rhopalomyrmex*); ***Prenolepis*** **tribal transfer; *Pseudaphomomyrmex*** **tribal transfer; *Pseudolasius*** (= *Nesolasius*) **tribal transfer; *Tapinolepis*** **stat. n.** (= *Mesanoplolepis* **syn. n.** [Appendix 1.1]).

Tribe Myrmoteratini

Genus: *Myrmoteras* (subgenera: *Myagroteras*, *Myrmoteras*).

tribes not included in either group

Tribe Gesomyrmecini [= *Dimorphomyrmii*, = *Gesomyrmini*, = *Santschiellini* **syn. n.**, = **Sicelomyrmicini* **syn. n.**].

Genera: *Gesomyrmex* (= *Dimorphomyrmex*, = *Gaesomyrmex*); *Santschiella* **tribal transfer; **Sicilomyrmex*** **tribal transfer.**

*Incertae sedis: **Prodimorphomyrmex*.*

Tribe Myrmecorhynchini **stat. rev.**

Genera: *Myrmecorhynchus*; *Notoncus* (= *Diodontolepis*) **tribal transfer; *Pseudonotoncus*** **tribal transfer.**

formicine tribe group

Tribe Oecophyllini

Genus: *Oecophylla*.

Tribe Gigantiopini

Genus: *Gigantiops*.

Tribe Camponotini [= *Polyrhachidini*].

Genera: *Calomyrmex*; **Camponotites*; *Camponotus* (= **Drymomyrmex*, = **Shanwangella*) (subgenera: *Camponotus*, *Colobopsis* (= *Campylomyrma*, = *Condylomyrma*, = *Dolophra* **syn. n.** [Appendix 1.3]), *Dendromyrmex*, *Dinomyrmex* (= *Myrmogigas*), *Hypercolobopsis* (= *Neocolobopsis*), *Karavaievia*, *Manniella*, *Mayria* (= *Myrmosaga*), *Myrmacrhaphe*, *Myrmamblys*, *Myrmaphaenus* (= *Neomyrmamblys*, = *Paracolobopsis*), *Myrmentoma*, *Myrmepinotus*, *Myrmepomis* (= *Myrmolophus*), *Myrmespera*, *Myrmewrynota*, *Myrmisolepis*, *Myrmobrachys*, *Myrmocladoecus*, *Myrmodirachis*, *Myrmogonia*, *Myrmomalis*, *Myrmonesites* (= *Myrmensites*), *Myrmopalpella*, *Myrmopelta*, *Myrmophyma* (= *Myrmocamelus*), *Myrmopiromis*, *Myrmoplatypus*, *Myrmoplatys*, *Myrmopsamma*, *Myrmopytia*, *Myrmosaulus*, *Myrmosericus*, *Myrmosphincta*, *Myrmostenus*, *Myrmotarsus*, *Myrmotemnus*, *Myrmothrix*, *Myrmotrema*, *Myrmoxygenys*, *Orthonotomyrmex* (= *Orthonotus*), *Paramyrmamblys*, *Pseudocolobopsis*, *Rhinomyrmex*, *Tanaemyrmex* (= *Myrmoturba*), *Thlipsepinotus*); **Chimaeromyrma*; *Echinopla* (= *Mesoxena*); *Forelophilus*; *Opisthopsis* (= *Myrmecopsis*); *Overbeckia*; *Phasmomyrmex* (subgenera: *Myrmacantha*, *Myrmorhachis*, *Phasmomyrmex*); *Polyrhachis* (subgenera: *Aulacomyrma* (= *Johnia*), *Campomyrma*, *Chariomyrma*, *Cyrtomyrma*, *Hagiomyrma*, *Hedomyrma* (= *Dolichorhachis*, = *Morleyidris*), *Hemioptica*, *Myrma* (= *Anoplomyrma*, = *Hoplomyrmus*, = *Pseudocyrtomyrma*), *Myrmatopa* (= *Irenea*), *Myrmhopla* (= *Cephalomyrma*, = *Florencea*), *Myrmothrinax* (= *Evelyna*), *Polyrhachis*); **Pseudocamponotus*.

Tribe Notostigmatini **trib. n.**

Genus: *Notostigma*.

Tribe Formicini

Genera: *Alloformica*; *Bajcaridris*; *Cataglyphis* (= *Eomonocombus*, = *Machaeromyrma*, = *Monocombus*, = *Paraformica*); *Formica* (= *Adformica*, = *Coptoformica* = *Formicina*, = *Iberoformica*, = *Neoformica*, = *Raptiformica*, = *Serviformica*); **Glaphyromyrmex*; *Polyergus*; *Proformica*; **Protoformica*; *Rossomyrmex*.

Tribe Melophorini

Genus: *Melophorus* (= *Erimelophorus*, = *Trichomelophorus*).

Incertae sedis in Formicinae: **Imhoffia*; **Kyromyrma*; **Leucotaphus*; **Protrechina*; **Tylolasius*. Collective group name: **Formicites*.

The myrmeciomorph subfamilies

Myrmeciinae and Pseudomyrmecinae.

Subfamily MYRMECIINAE

Tribe Myrmeciini

Genus: *Myrmecia* (= *Halmamyrmecia*, = *Pristomyrmecia*, = *Promyrmecia*).

Tribe Prionomyrmecini [= *Nothomyrmecii*].

Genera: *Nothomyrmecia*; **Prionomyrmex*.

Incertae sedis in Myrmeciinae: **Archimyrmex*; **Ameghinoia*; **Polanskiella*.

Subfamily PSEUDOMYRMECINAE

Tribe Pseudomyrmecini [= *Leptaleinae*, = *Pseudomyrmidae*].

Genera: *Myrcidris*; *Pseudomyrmex* (= *Apedunculata*, = *Clavanoda*, = *Latinoda*, = *Leptalea*, = *Leptalaea*, = *Myrmex*, = *Ornatinoda*, = *Pseudomyrma*, = *Triangulinoda*); *Tetraponera* (= *Pachysima*, = *Parasima*, = *Sima*, = *Viticicola*).

The dorylomorph subfamilies

Aenictinae, Aenictogitoninae, Dorylinae, Cerapachyinae, Ecitoninae and Leptanilloidinae.

Subfamily CERAPACHYINAE

Tribe Acanthostichini

Genus: *Acanthostichus* (= *Ctenopyga*).

Tribe Cyliandromyrmecini

Genus: *Cylindromyrmex* (= *Holcoponera*, = *Hypocylindromyrmex*, = *Metacyliandromyrmex*).

Tribe Cerapachyini [= *Eusphinctinae*, = *Lioponerini*].

Genera: *Cerapachys* (= *Ceratopachys*, = *Chrysapace*, = *Cysias*, = *Lioponera*, = *Neophyracaces*, = *Ooceraea*, = *Parasyscia*, = *Phyracaces*, = **Procerapachys*, = *Syscia*, = *Yunodorylus* syn. n. [Appendix 1.4]); *Simopone*; *Sphinctomyrmex* (= *Aethiopopone*, = *Eusphinctus*, = *Nothosphinctus*, = *Zasphinctus*).

Subfamily ECITONINAE

Tribe Cheliomyrmecini

Genus: *Cheliomyrmex*.

Tribe Ecitonini

Genera: *Eciton* (= *Ancylognathus*, = *Camptognatha*, = *Holopone*, = *Mayromyrmex*); *Labidus* (= *Nycteresia*, = *Pseudodichthadia*); *Neivamyrmex* (= *Acamatus*, = *Woitkowskia*); *Nomamyrmex*.

Subfamily LEPTANILLOIDINAE

Tribe Leptanilloidini

Genera: *Asphinctanilloides*; *Leptanilloides*.

Subfamily AENICTINAE

Tribe Aenictini

Genus: *Aenictus* (= *Enictus*, = *Paraenictus*, = *Typhlatta*).

Subfamily DORYLINAE

Tribe Dorylini

Genus: *Dorylus* (subgenera: *Alaopone* (= *Shuckardia*), *Anomma* (= *Sphecomyrmex*, = *Sphegomyrmex*), *Dichthadia*, *Dorylus*, *Rhogmus*, *Typhlopone* (= *Cosmaecetes*, = *Cosmaegetes*)).

Subfamily AENICTOGITONINAE

Tribe Aenictogitonini

Genus: *Aenictogiton*.

The leptanillomorph subfamilies

Apomyrminae and Leptanillinae.

Subfamily APOMYRMINAE

Tribe Apomyrmini

Genus: *Apomyrma*.**Subfamily LEPTANILLINAE**

Tribe Anomalomyrmini

Genera: *Anomalomyrma*; *Protanilla*.

Tribe Leptanillini

Genera: *Leptanilla* (= *Leptomesites*); *Phaulomyrma*; *Yavnella*.**The poneromorph subfamilies**

Amblyoponinae, Ectatomminae, Heteroponerinae, Paraponerinae, Ponerinae, Proceratiinae.

Subfamily AMBLYOPONINAE stat. rev.

Tribe Amblyoponini [= Ericapeltini, = Examblyoponini, = Onychomyrmicini, = Reneini].

Genera: *Adetomyrma*; *Amblyopone* (= *Amblyopopona*, = *Amblyopopone*, = *Arotropus*, = *Ericapelta*, = *Fulakora*, = *Lithomyrmex*, = *Neoamblyopone*, = *Protamblyopone*, = *Stigmatomma*, = *Xymmer*); *Bannapone*; **Casaleia* (= **Protamblyopone*); *Concoctio*; *Myopopone*; *Mystrium*; *Onychomyrmex*; *Prionopelta* (= *Examblyopone*, = *Renea*).*Incertae sedis*: *Paraprimonopelta*.**Subfamily PONERINAE**Tribe Ponerini [= **Archiponerini*, = *Centromyrmicini*, = *Dorylozelini*, = *Drepanognathini*, = *Euponerinae*, = *Harpegnathii*, = *Leptogenysii*, = *Odontomachidae*, = *Pachycondylinae*, = *Plectroctenini*, = *Pseudoneoponerini* **syn. n.**].Genera: *Anochetus* (= *Myrmapatetes*, = *Stenomyrmex*); *Asphinctopone* (= *Lepidopone*); *Belonopelta* (= *Leiopelta*); *Centromyrmex* (= *Glyphopone*, = *Leptopone*, = *Promyopias*, = *Spalacomyrmex*, = *Typhloteras*); *Cryptopone*; *Diacamma*; *Dinoponera*; *Dolioponera*; *Emeryopone*; *Harpegnathos* (= *Drepanognathus*); *Hypoponera*; *Leptogenys* (= *Dorylozelus*, = *Lobopelta*, = *Machaerogenys*, = *Microbolbos*, = *Odontopelta*, = *Prionogenys*); *Loboponera*; *Myopias* (= *Bradyponera*, = *Trapeziopelta*); *Odontomachus* (= *Champsomyrmex*, = *Myrtoteras*, = *Pedetes*); *Odontoponera*; *Pachycondyla* (= *Bothroponera*, = *Brachyponera*, = *Ectomomyrmex*, = *Eumecopone*, = *Hagensia*, = *Hiphopelta*, = *Megaloponera*, = *Megaponera*, = *Mesoponera*, = *Neoponera*, = *Ophthalmopone*, = *Paltothyreus*, = *Pseudoneoponera*, = *Pseudoponera*, = *Syntermitopone*, = *Termitopone*, = *Trachymesopus*, = *Trachyponera*, = *Wadeura*, = *Xiphopelta*); *Phrynoponera*; *Plectroctena* (= *Cacopone*); *Ponera* (= *Pseudocryptopone*, = *Pteroponera*, = *Selenopone*); *Psalidomyrmex*; *Simopelta*; *Streblognathus*.*Incertae sedis*: **Archiponera*; **Poneropsis*; **Protopone*.

Tribe Thaumatomyrmecini

Genus: *Thaumatomyrmex*.

Tribe Platythyreini

Genus: *Platythyrea* (= *Eubothroponera*).**Subfamily ECTATOMMINAE stat. n.**Tribe Ectatommini [= *Stictoponerini*].Genera: *Ectatomma*; *Gnamptogenys* (= *Alfaria*, = *Barbourella*, = *Commateta*, = *Emeryella*, = *Holcoponera*, = *Mictoponera*, = *Opisthoscyphus*, = *Parectatomma*, = *Poneracantha*, = *Rhopalopone*, = *Stictoponera*, = *Spaniopone*, = *Tamnoteca*,

= *Wheeleripone*); *Rhytidoponera* (= *Chalcoponera*).

Incertae sedis: **Electroponera*.

Tribe Typhlomymecini

Genus: *Typhlomymex*.

Incertae sedis in Ectatomminae: **Canapone*.

Subfamily **HETEROPONERINAE** subfam. n.

Tribe Heteroponerini trib. n.

Genera: *Acanthoponera*; *Heteroponera* (= *Anacanthoponera*, = *Paranomopone*).

Incertae sedis: *Aulacopone*.

Subfamily **PARAPONERINAE** stat. n.

Tribe Paraponerini

Genus: *Paraponera*.

Subfamily **PROCERATIINAE** stat. n.

Tribe Proceratiini [= Discothyrinae].

Genera: **Bradoponera*; *Discothyrea* (= *Prodiscothyrea*, = *Pseudosphincta*, = *Pseudosysphincta*); *Proceratium* (= *Sysphincta*, = *Sysphingta*).

Tribe Probolomymecini stat. n.

Genus: *Probolomymex* (= *Escherichia*).

Incertae sedis in poneromorph subfamilies: **Cretopone*, **Petropone*.

Collective group name: **Ponerites*.

The myrmicomorph subfamilies

Agroecomyrmecinae and Myrmicinae.

Subfamily **AGROECOMYRMECINAE** stat. n.

Tribe Agroecomyrmecini

Genera: **Agroecomyrmex*; **Eulithomyrmex* (= **Lithomyrmex*); *Tatuidris*.

Subfamily **MYRMICINAE**

dacetine tribe group

Tribe Basicerotini

Genera: *Basicros* (= *Aspididris*, = *Ceratobasis*); *Creightonidris*; *Eurhopalothrix*; *Octostruma*; *Protalaridris*; *Rhopalothrix* (= *Acanthidris*, = *Heptastruma*); *Talaridris*.

Tribe Dacetini [= Dacetiti, = Epopostrumiti, = Orectognathiti, = Strumigeniti].

Genera: *Acanthognathus*; *Colobostruma* (= *Alistruma*, = *Clarkistruma*); *Daceton* (= *Dacetum*); *Epopostruma* (= *Hexadaceton*); *Mesostruma*; *Microdaceton*; *Orectognathus* (= *Arnoldidris*); *Pyramica* (= *Asketogenys*, = *Borgmeierita*, = *Cephaloxys*, = *Chelystruma*, = *Cladarogenys*, = *Codiomyrmex*, = *Codioxenus*, = *Dorisidris*, = *Dysedrognathus*, = *Epitritus*, = *Glamyromymex*, = *Gymnomymex*, = *Kyidris*, = *Miccostruma*, = *Neostruma*, = *Pentastroma*, = *Platystruma*, = *Polyhomoa*, = *Serrastruma*, = *Smithistruma*, = *Tingimymex*, = *Trichoscapa*, = *Weberistruma*, = *Wessonistruma*); *Strumigenys* (= *Eneria*, = *Labidogenys*, = *Proscopomymex*, = *Quadristruma*).

Tribe Phalacromymecini

Genera: *Ishakidris*; *Phalacromymex*; *Pilotrochus*.

cephalotine tribe group

Tribe Cataulacini

Genus: *Cataulacus* (= *Otomymex*).

Tribe Cephalotini [= Cryptoceridae].

Genera: *Cephalotes* (= *Cryptocerus*, = *Cyathocephalus*, = *Cyathomymex*, = *Eucryptocerus*, = **Exocryptocerus*, = *Harnedia*, = *Hypocryptocerus*, = *Paracryptocerus*, = *Zacryptocerus*); *Procryptocerus*.

attine tribe group**Tribe Attini**

Genera: *Acromyrmex* (subgenera: *Acromyrmex*, *Moellerius*); *Apterostigma*; *Atta* (= *Archeatta*, = *Epiatta*, = *Neoatta*, = *Oecodoma*, = *Palaeatta*); *Cyphomyrmex* (= *Cyphomannia*); *Mycetagroicus*; *Mycetarotes*; *Mycetophylax* (= *Mycetopurus*, = *Paramycetophylax*); *Mycetosoritis*; *Mycocepurus* (= *Descolemyrma*); *Myrmicocrypta* (= *Glyptomyrmex*); *Pseudoatta*; *Sericomyrmex*; *Trachymyrmex*.

Ichnotaxon: **Attaichnus*.

Tribe Blepharidattini

Genera: *Blepharidatta*; *Wasmannia* (= *Hercynia*).

solenopsidine tribe group

Tribe Stenammini [= *Calyptomyrmecini*, = *Proattini*].

Genera: *Ancyridris*; *Bariamyrmex*; *Calyptomyrmex* (= *Weberidris*); *Cyphoidris*; *Dacatria*; *Dacatinops*; *Dicroaspis* (= *Geognomicus*); *Indomyrma*; *Lachnomyrmex*; *Lasiomyrma*; *Lordomyrma* (= *Prodicroaspis*, = *Promeranoplus*); *Proatta*; *Rogeria* (= *Irogera*); *Rostromyrmex*; *Stenamma* (= *Asemorhoptrum*, = *Theryella*); *Tetheamyrmex*; *Vollenhovia* (= *Aratomyrmex*, = *Dorothea*, = *Dyomorium*, = *Heteromyrmex*, = **Propodomyrma*, = *Vollenhovenia*) tribal transfer.

Incertae sedis: *Adelomyrmex* (= *Apsychomyrmex*, = *Arctomyrmex*); *Baracidris*, **Ilemomyrmex*.

Tribe Solenopsidini [= **Hypopomyrmeciti* syn. n., = *Megalomyrmecini*, = *Monomoriini*, = *Pheidologetini* syn. n.].

Genera: *Adlerzia* (= *Stenothorax*) tribal transfer; *Afroxyidris* tribal transfer; *Allomerus*; *Anillomyrma*; *Bondroitia*; *Carebara* tribal transfer; *Carebarella* (= *Carebarelloides*); *Diplomorium*; *Epelysidris*; *Machomyrma* tribal transfer; *Mayriella* tribal transfer; *Megalomyrmex* (= *Cepobroticus*, = *Wheelerimyrmex*); *Monomorium* (= *Antichthonidris*, = *Chelaner*, = *Corynomyrmex*, = *Epixenus*, = *Epoecus*, = *Equestrimessor*, = *Equessimessor*, = *Holcomyrmex*, = *Ireneidris*, = *Isolcomyrmex*, *Isholcomyrmex*, = **Lampromyrmex*, = *Mitara*, = *Notomyrmex*, = *Paraphacota*, = *Parholcomyrmex*, = *Paraholcomyrmex*, = *Pharaophanes* syn. n., = *Protholcomyrmex*, = *Schizopelta*, = *Syllophopsis*, = *Syllopsis*, = *Trichomyrmex*, = *Wheeleria*, = *Wheeleriella*, = *Xenhyboma*, = *Xeromyrmex*); *Nothidris*; *Oligomyrmex* (= *Aeromyrma*, = *Aneleus*, = *Crateropsis*, = *Erebomyrma*, = *Hendecatella*, = *Lecanomyrma*, = *Neoblepharidatta* syn. n. [Appendix 1.9], = *Nimbamyrma*, = *Solenops*, = *Spelaemyrmex*, = *Sporocleptes*) tribal transfer; *Oxyepoecus* (= *Forelifidis*, = *Martia*); *Paedalgus* tribal transfer; *Phacota*; *Pheidologeton* (= *Amauromyrmex*, = *Idrisella*, = *Phidologeton*) tribal transfer; *Solenopsis* (= *Bisolenopsis*, = *Disolenopsis*, = *Diagyne*, = *Diplorhoptrum*, = *Euophthalma*, = *Granisolenopsis*, = *Labauchena*, = *Lilidris*, = *Octella*, = *Oedaleocerus*, = *Paranamyrmex*, = *Synsolenopsis*); *Tranopelta* tribal transfer.

Incertae sedis: **Hypopomyrmex* tribal transfer; **Oxyidris*.

myrmicine tribe group**Tribe Myrmicini**

Genera: *Eutetramorium*; *Huberia*; *Hylomyrma* (= *Lundella*); *Manica* (= *Neomyrma*, = *Oreomyrma*); *Myrmica* (= *Dodecamyrmica*, = *Paramyrmica*, = *Sifolinia*, = *Sommimyrmica*, = *Symbiomyrma*); *Pogonomyrmex* (= *Ephebomyrmex*, = *Forelomyrmex*, = *Janetia*); *Secostruma* tribal transfer.

Incertae sedis: **Nothomyrmica*.

Tribe Tetramoriini [= *Anergatini*, = *Teleutomyrmini*].

Genera: *Anergates*; *Decamorium*; *Rhoptromyrmex* (= *Acidomyrmex*, = *Hagioxenus*, = *Ireneella*); *Strongylognathus* (= *Myrmus*); *Teleutomyrmex*; *Tetramorium* (= *Apomyrmex* syn. n. [Appendix 1.5], = *Atopula*, = *Lobomyrmex*, = *Macromischoides*, = *Macromichoides*, = *Sulcomyrmex*, = *Tetrogmus*, = *Triglyphothrix*, = *Xiphomyrmex*).

Tribe Pheidolini [= *Anergatidini*, = *Aphaenogastrini*, = *Lophomyrmicini*, = *Ocymyrmicini*].

Genera: *Anisopheidole* tribal transfer; *Aphaenogaster* (= *Attomyrma*, = *Brunella*, = *Deromyrma*, = *Novomessor*, = *Nystalomyrma*, = *Planimyrmex*, = **Sinaphaenogaster* syn. n. [Appendix 1.11]); *Chimaeridris*; *Goniomma*; *Kartidris*; *Lophomyrmex*; *Messor* (= *Cratomyrmex*, = *Lobognathus*, = *Sphaeromessor*, = *Veromessor*); *Ocymyrmex*; *Oxyopomyrmex*; *Pheidole* (= *Allopheidole*, = *Anergatides*, = *Bruchomyrma*, = *Cardiopheidole*, = *Cephalomorium*, = *Ceratopheidole*, = *Conothoracoides*, = *Conothorax*, = *Decapheidole*, = *Elasmopheidole*, = *Electropheidole*, = *Epipheidole*, = *Eriopheidole*, = *Gallardomyrma*, = *Hendecapheidole*, = *Ischnomyrmex*, = *Isopheidole*, = *Leptomyrma*, = *Macropheidole*, = *Oecophthora*, = *Parapheidole*, = *Pheidolacanthinus*, = *Phidola*, = *Phidole*, = *Scrobopheidole*, = *Stegopheidole*, = *Sympheidole*, = *Trachypheidole*, = *Xenoaphaenogaster*).

Incertae sedis: **Lonchomyrmex*; **Paraphaenogaster*.

Tribe Lenomyrmecini trib. n.

Genus: *Lenomyrmex*.

Tribe Paratopulini trib. n.

Genus: *Paratopula*.

formicoxenine tribe group

Tribe Crematogastrini

Genera: *Crematogaster* (subgenera: *Apterocrema*, *Atopogyne*, *Colobocrema*, *Crematogaster* (= *Acrocoelia*), *Decacrema*, *Eucrema*, *Mesocrema*, *Nematocrema*, *Neocrema*, *Orthocrema* (= *Tranopeltoides*), *Oxygyne*, *Paracrema*, *Physocrema*, *Rhachiocrema*, *Sphaerocrema*, *Xiphocrema*); *Recurvidris* (= *Trigonogaster*) tribal transfer.

Tribe Ankylomyrmini trib. n.

Genus *Ankylomyrma*.

Tribe Liomyrmecini trib. n.

Genus *Liomyrmex* (= *Laparomyrmex*, = *Promyrmex*).

Tribe Meranoplini

Genera: *Meranoplus*.

Incertae sedis: **Parameranoplus*.

Tribe Myrmicariini

Genus: *Myrmicaria* (= *Heptacondylus*, = *Physatta*).

Tribe Formicoxenini [= Cardiocondylini, = Leptothoracini, = Ochatomyrmicini syn. n., = Podomyrmini, = Solenomyrmini syn. n., = Stereomyrmicini].

Genera: *Atopomyrmex*; *Cardiocondyla* (= *Dyclona*, = *Emeryia*, = *Loncyda*, = *Prosopidris*, = *Xenometa*); *Chalepoxenus* (= *Leonomyrma*); *Dilobocondyla* (= *Mesomyrma*); *Formicoxenus* (= *Symmyrmica*); *Gauromyrmex* (= *Acalama*, = *Solenomyrma*) stat. rev. [Appendix 1.6] tribal transfer; *Harpagoxenus* (= *Tomognathus*); *Leptothorax* [Appendix 1.7] (= *Doronomyrmex*, = *Mychothorax*); *Myrmoxenus* (= *Epimyrmex*, = *Myrmetaerus*) (subgenera: *Gonepimyrmex*, *Myrmoxenus*); *Nesomyrmex* [Appendix 1.7] (= *Caulomyrma*, = *Goniothorax*, = *Ireneopone* syn. n. [Appendix 1.8], = *Limnomyrmex*, = *Meia*, = *Tetramyrma* syn. n.) stat. rev.; *Ochetomyrmex* (= *Brownidris*) tribal transfer; *Peronomyrmex*; *Podomyrma* (= **Acrostigma*, = *Dacryon*, = *Pseudopodomyrma*); *Poecilomyrma*; *Protomognathus*; *Romblonella*; *Rotastruma*; *Stereomyrmex* (= *Willowsiella* syn. n. [Appendix 1.10]); *Temnothorax* [Appendix 1.7] (= *Antillaemyrmex* syn. n., = *Croesomyrmex* syn. n., = *Dichothorax* syn. n., = *Icothorax* syn. n., = *Macromischa* syn. n., = *Myrafant* syn. n., = *Myrmammophilus* syn. n.) stat. n.; *Terataner* (= *Tranetera*); *Vombisidris*; *Xenomyrmex* (= *Myrmecinella*) tribal transfer.

Incertae sedis: **Stigmomyrmex*; *Tricytarus* unrecognisable taxon.

tribes not included in the above groups

Tribe Stegomyrmecini

Genus: *Stegomyrmex*.

Tribe Myrmecini [= Archaeomyrmecini].

Genera: *Acanthomyrmex*; *Myrmecina* (= *Archaeomyrmex*); *Perissomyrmex*; *Pristomyrmex* (= *Dodous*, = *Hylidris*, = *Odontomyrmex*).

Incertae sedis: **Enneamergus*; **Stiphromyrmex*.

Tribe Metaponini

Genus: *Metapone*.

Tribe Melissotarsini

Genera: *Melissotarsus*; *Rhopalomastix*.

Incertae sedis in Myrmicinae: **Attopsis*; **Cephalomyrmex*; **Electromyrmex*; **Eocenidris*; **Eoformica*; **Eomyrmex*; **Miosolenopsis*; **Zhangidris* (= **Heteromyrmex*, homonym) **nom. n.**

Collective group name: **Myrmicites*.

Extinct subfamilies

**Armaniinae*, **Brownimeciinae*, **Formiciinae* and **Sphecomyrminae*.

Subfamily **ARMANIINAE*

Tribe **Armaniini*

Genera: **Archaeopone*; **Armania* (= **Armaniella*); **Dolichomyrma*; **Khetania*; **Poneropterus*; **Pseudarmania*.

Subfamily **SPHECOMYRMINAE*

Tribe **Haidomyrmecini trib. n.*

Genus: **Haidomyrmex*.

Tribe **Sphecomyrmini*

Genera: **Baikuris*; **Cretomyrma*; **Dlusskyidris* (= **Palaeomyrmex*); **Sphecomyrma*.

Subfamily **BROWNIMECIINAE* subfam. n.

Tribe **Brownimeciini trib. n.*

Genus: **Brownimecia*.

Subfamily **FORMICIINAE*

Tribe **Formiciini*

Genus: **Formicium* (= **Eoponera*, = **Megapterites*).

Taxa *incertae sedis* and exclusions from Formicidae

Genera *incertae sedis* in FORMICIDAE: **Calyptites*; **Cariridris*; *Condylodon*; *Hypochira*; *Noonilla*; **Paleosminthurus*; **Syntaphus*.

Genera excluded from Formicidae: **Cretacoformica*; *Formila*; **Myrmicium*; **Palaeomyrmex*; **Promyrmicium*; *Scyphodon*.

Genus-group *nomina nuda* in Formicidae: *Ancylognathus*; *Hypopheidole*; *Leptoxenus*; *Myrmegis*; *Pergandea*; *Salicomorpha*; *Titusia*.

Family-group names that are taxonomically unavailable: *Alloformicinae*, *Eucamponotinae*, *Eudolichoderinae*, *Eudorylinae*, *Euformicinae*, *Eumyrmicinae*, *Exeuponerinae*, *Heteroformicinae*, *Mesocamponotinae*, *Metadorylinae*, *Mycetomyrmicinae*, *Neoattini*, *Paleoattini*, *Paleoponerinae*, *Procamponotinae*, *Prodolichoderinae*, *Prodorylinae*, *Promyrmicinae*, *Proponerinae*, *Rhagiomyrmicinae*, *Taraxoponerinae*.

KEY TO EXTANT SUBFAMILIES, BASED ON THE WORKER CASTE

[Note: Aenictogitoninae (Afrotropical), known only from males, is omitted.]

- 1 Prementum not visible when mouthparts fully closed; prementum concealed behind labrum and mesially projecting outgrowths from the maxillae that meet along the midline. Spiracles of abdominal segments V - VII shifted posteriorly on each segment, visible without distension or dissection.....2
- Prementum clearly visible when mouthparts fully closed; prementum is flanked by the labrum anteriorly and by a maxilla on each side. Spiracles of abdominal segments V - VII anterior on each segment, not visible without distension or dissection.....6

- 2 Propodeal spiracle situated low down on the side and shifted posteriorly so that it is at or behind the midlength of the sclerite.....3
 - Propodeal spiracle situated high up on the side and in front of the midlength of the sclerite.....4
- 3 Pygidium large, not overhung by abdominal tergite VI. Dorsum of pygidium flattened, margins of flattened area armed either laterally, posteriorly, or both with a series of denticles or short spines. Promesonotal suture usually entirely absent (present but fully fused and immobile in one species only). Petiole without tergosternal fusion. (World tropics and subtropics).....**CERAPACHYINAE** (p. 32)
 - Pygidium extremely reduced, a slender U-shaped sclerite that is overhung by abdominal tergite VI. Dorsum of pygidium not flat, without denticles or short spines. Promesonotal suture fully developed and flexible. Petiole with complete tergosternal fusion. (New World tropics).....**LEPTANILLOIDINAE** (p. 35)
- 4 Promesonotal suture present and conspicuous on dorsal alitrunk but fused and inflexible. Pygidium large, the posttergite indented or depressed posteromedially and bidentate laterally. Distal (free) margin of labrum not concave or cleft medially. Abdominal segments V - VII with strongly differentiated presclerites. (Old World tropics and subtropics except Madagascar and Australia).....**DORYLINAE** (p. 36)
 - Promesonotal suture absent from dorsal alitrunk. Pygidium very small, reduced to a narrow U-shaped sclerite. Distal (free) margin of labrum concave or cleft medially. Abdominal segments V - VII without strongly differentiated presclerites.....5
- 5 Antenna with 8 - 10 segments. Spiracle of abdominal segment III (postpetiole) behind midlength of segment. Abdominal segment IV in profile constricted behind the presclerites, forming a neck. (Old World tropics and subtropics except Madagascar)**AENICTINAE** (p. 36)
 - Antenna with 12 segments. Spiracle of abdominal segment III (postpetiole) in front of midlength of segment. Abdominal segment IV in profile not constricted behind the presclerites. (New World tropics to temperate regions).....**ECITONINAE** (p. 34)
- 6 Waist of a single segment (petiole), its articulation to abdominal segment III very broad; petiole without a distinctly descending posterior face. Helcium very broad; in profile helcium projects from very high on anterior face of abdominal segment III; above the helcium abdominal segment III has no free anterior face. Dentiiform clypeal setae present (absent in only one species). (World wide)**AMBLYOPONINAE** (p. 41)
 - Waist of one or two segments. If of only one (petiole) then articulation to abdominal segment III narrow; petiole with a distinctly descending posterior face; helcium narrow; in profile helcium usually projects from midheight or lower on anterior face of abdominal segment III; above the helcium abdominal segment III usually has a free anterior face; dentiiform clypeal setae absent.....7
- 7 Abdominal segment IV with complete tergosternal fusion.....8
 - Abdominal segment IV without tergosternal fusion.....13
- 8 Body with two reduced or isolated segments (petiole plus postpetiole) between alitrunk and gaster. (Central America).....**AGROECOMYRMECINAE** (p. 51)
 - Body with a single reduced and isolated segment (petiole only) between alitrunk and gaster.....9
- 9 Metapleural gland orifice in profile a longitudinal to oblique curved narrow slit or narrow crescent, bounded below by a convex rim of cuticle so that the orifice is directed dorsally. (Southern Nearctic, Neotropical, Oriental, Malesian, Austral)**ECTATOMMINAE** (p. 45)
 - Metapleural gland orifice in profile a simple elliptical to circular foramen that opens

- laterally or posteriorly, not bounded below by a convex rim of cuticle that directs the orifice dorsally.....10
- 10 Promesonotal suture present, fully developed across dorsum of alitrunk and flexible, the pronotum and mesonotum capable of movement relative to each other.....11
- Promesonotal suture either entirely absent across dorsum of alitrunk or present but reduced and fully fused so that the pronotum and mesonotum are incapable of movement relative to each other.....12
- 11 Torulus completely fused to frontal lobe. Outer margins of frontal lobes form simple short semicircles or blunt triangles and in full-face view have a distinctly pinched-in appearance posteriorly. Anterior clypeal margin without a lamellar apron. Cephalic dorsum without a median longitudinal carina that extends from anterior clypeal margin to occipital margin. (World wide).....**PONERINAE** (p. 42)
- Torulus not completely fused to frontal lobe. Outer margins of frontal lobes do not form simple short semicircles or blunt triangles and in full-face view do not have a distinctly pinched-in appearance posteriorly. Anterior clypeal margin with a narrow lamellar apron. Cephalic dorsum with a median longitudinal carina that extends from anterior clypeal margin to occipital margin. (Neotropical, Austral, Armenia).....**HETEROPONERINAE** (p. 46)
- 12 Antennal sockets mostly to entirely exposed, close to anterior margin of head. Metabasitarsal sulcus absent. Pretarsal claws simple, without preapical tooth. Metatibia with 1 spur. Stridulitrum absent from pretergite of abdominal segment IV. Hypopygium without lateral row of spines. Antennal scrobes absent. (World wide).....**PROCERATIINAE** (p. 48)
- Antennal sockets concealed by frontal lobes, distant from anterior margin of head. Metabasitarsal sulcus present. Pretarsal claws each with a preapical tooth. Metatibia with 2 spurs. Stridulitrum present on pretergite of abdominal segment IV. Hypopygium armed along lateral margin with a row of spines. Antennal scrobes present and bipartite, with dorsal portion above eye and ventral portion below it. (Neotropical).....**PARAPONERINAE** (p. 47)
- 13 Metacoxal cavities open; the insertion cavity of each metacoxa in the ventral alitrunk is not completely surrounded by cuticle, so that the coxal cavity is confluent medially with the petiolar foramen.....14
- Metacoxal cavities closed; the insertion cavity of each metacoxa in the ventral alitrunk is completely surrounded by cuticle, so that the coxal cavity is fully separated from the petiolar foramen.....15
- 14 Petiole without tergosternal fusion. Pretarsal claws each with a preapical tooth. Metabasitarsal sulcus present. Metatibia with two spurs. Propodeal lobes present. Orifice of propodeal spiracle slit-shaped. Maxillary palp with 6 segments (Austral).....**MYRMECIINAE** (p. 29)
- Petiole with complete tergosternal fusion. Pretarsal claws without a preapical tooth. Metabasitarsal sulcus absent. Metatibia with one spur. Propodeal lobes absent. Orifice of propodeal spiracle circular. Maxillary palp with 3 segments. (Sri Lanka).....**ANEURETINAE** (p. 18)
- 15 Body with two reduced or isolated segments (petiole plus postpetiole) between alitrunk and gaster. Abdominal segment IV with strongly differentiated presclerites.....16
- Body with a single reduced and isolated segment (petiole only) between alitrunk and gaster. Abdominal segment IV without presclerites.....18
- 16 Helcium in frontal view with tergite and sternite together forming a rough circle; apices of the two sclerites meet end to end, the tergite does not overlap the sternite, the sternite is not attached some distance up the inner wall of the tergite. Promesonotal

- suture either entirely absent across dorsum of alitrunk or present but reduced and fully fused so that the pronotum and mesonotum are incapable of movement relative to each other. Metapleural gland orifice a longitudinal slit or narrow crescent that opens dorsally to posterodorsally. (World wide).....**MYRMICINAE** (p. 52)
- Helcium in frontal view with tergite overlapping sternite on each side, the sternite attached some distance up the inner wall of the tergite. Promesonotal suture present, fully developed across dorsum of alitrunk and flexible, the pronotum and mesonotum capable of movement relative to each other. Metapleural gland orifice not a dorsally to posterodorsally opening longitudinal slit or narrow crescent.....17
- 17 Petiole and abdominal segment III (postpetiole) without tergosternal fusion. Antennal sockets inclined upward toward midline of head. Metapleural gland orifice not overhung from above by a cuticular rim or flange. Propodeal spiracle situated high on side and far forward. Eyes present. (World tropics and subtropics)**PSEUDOMYRMECINAE** (p. 30)
- Petiole and abdominal segment III (postpetiole) with tergosternal fusion. Antennal sockets horizontal. Metapleural gland orifice overhung from above by a cuticular rim or flange. Propodeal spiracle very low on side of sclerite. Eyes absent. (Old World tropics to temperate regions).....**LEPTANILLINAE** (p. 39)
- 18 Labrum with numerous peg-like dentiform setae. Antennal sockets horizontal and very close to anterior margin of head; clypeus very narrow from front to back. Abdominal segment III with complete tergosternal fusion. Sternite of petiole a minute posteromedian sclerite. Pygidium large and convex, in profile about as long as abdominal tergite V. Sting large and exsertile, fully functional. (West Africa)**APOMYRMINAE** (p. 39)
- Labrum without peg-like dentiform setae. Antennal sockets inclined upward toward midline of head, well behind anterior margin of head; clypeus broad from front to back. Abdominal segment III without or with partial (close to helcium) tergosternal fusion. Sternite of petiole completely fused to tergite. Pygidium small, in profile shorter than abdominal tergite V. Sting vestigial, not exsertile, non-functional.19
- 19 Apex of hypopygium with a semicircular to circular acidopore, this structure often projecting as a nozzle and fringed with setae but sometimes concealed by a projection of the pygidium. Sting vestige with lancets disarticulated from sting; formic acid producing glands present. (World wide).....**FORMICINAE** (p. 20)
- Apex of hypopygium without an acidopore, instead the hypopygium and pygidium meeting in a transverse slit. Sting vestige with lancets not disarticulated from sting; formic acid producing glands absent. (World wide)...**DOLICHODERINAE** (p. 18)

TAXONOMY AND SYSTEMATICS

Diagnoses of the subfamilies and tribes that follow are based primarily on worker characters, which are most widely known and best understood. These characters are usually also shown by the queen (gyne) except where standard worker/queen caste differences are concerned, such as presence/absence of ocelli, structure of alate alitrunk and venation. Characters that are exclusively based on queen, male, larva, pupa, aspects of behaviour and so on, are included only where expressly stated. A table indicating antennomere count, palp formula, total dental count and spur formula is presented for all extant ant genera in Appendix 2 (p. 274), and a synthesis of the suspected characteristics of the archetypal ant is given in Appendix 3 (p. 288).

In the diagnoses *apomorphies are stressed, and printed in italics* only where they are definitely, or very strongly suspected to be, uniquely derived evolutionary developments of a taxon. Other characters included in the diagnoses may be apomorphies of which analogues have apparently developed independently elsewhere in the family or subfamily

but remain unresolved, or they may be plesiomorphies which nevertheless retain value for diagnostic purposes. The polarity of many characters remains equivocal and homoplasy is extensive in the Formicidae. Notes on individual characters and comments on the groups are appended to the diagnoses where appropriate.

Names of taxa preceded by a star-sign "*" are known only from the fossil record. For most fossil forms placement in higher taxa is conjectural, because diagnostic characters are frequently invisible. This applies particularly to rock impressions; fossils in amber yield better results but are hardly ever entirely satisfactory. Characters noted in diagnoses should therefore be understood to apply to extant taxa unless stated otherwise. A checklist of times of first appearance of ant genera in the fossil record is given in Appendix 4 (p. 290).

In this section the diagnosis of each higher taxon has appended a list of currently valid component taxa of the next lower rank. Tribe rank diagnoses include lists of currently recognised genera only; subgenera, junior synonyms (new or old) and new changes of status are excluded but are indicated in the systematic list above and are fully documented under the appropriate senior genus in the synopsis of the classification; innovations at genus and subgenus rank are discussed individually in sections of Appendix 1 (p. 267).

FAMILY FORMICIDAE

Diagnosis

Aculeate Hymenoptera belonging to the superfamily Vespoidea. *Eusocial with a wingless worker caste* (note 1), *with perennial colonies. Head of female castes (worker and queen) prognathous* (note 2). *Infrabuccal sac present between labium and hypopharynx* (note 3). *Antenna geniculate between long scape and funiculus. Metapleural gland present in female castes* (note 4). *Abdominal segment II forming a differentiated petiole* (note 5). *Wings of alate queen (gyne) deciduous, shed after mating. Sexuals engage in mass nuptial flights* (note 6). *Forewing venation vespid but cross-veins 3rs-m and 2m-cu always absent* (note 7). *Antenna with 4 - 12 segments in female castes, 9 - 13 in male.* [Synopsis, p. 77.]

Notes

- (1) Some inquiline taxa have secondarily lost their worker caste, its functions being taken over by the workers of the host species.
- (2) Among the living aculeates a prognathous head is also developed only among females of the family Bethyridae (superfamily Chrysidoidea). In extinct vespoids the head appears prognathous only in the family *Falsiformicidae.
- (3) The infrabuccal sac retains and compacts particulate matter, usually derived from food, that is to be discarded or not ingested.
- (4) Metapleural glands have been secondarily lost in some taxa, for example *Oecophylla*, many Camponotini, and a number of inquiline species throughout the family. Males of relatively few taxa exhibit a metapleural gland; it is usually absent in this sex.
- (5) Some members of a number of other vespid families also have abdominal segment II more or less obviously modified into a petiole, for instance some Mutillidae, Bradynobaenidae and Vespidae. In a number of formicid taxa the waist consists of two separated segments, abdominal segments II and III (petiole and postpetiole), either in females alone or in both females and males; a separated postpetiole has evolved independently several times within the family.
- (6) Mass nuptial flights are independently secondarily lost in taxa with ergatoid queens, in those where queens are replaced by gamergates, in some inquilines and in a few specialised polygynous taxa.
- (7) Many vespid families have single genera, or groups of genera, in which cross-veins 3rs-m and 2m-cu have been lost, but each family contains a majority in which they have been retained. The implication is that the reduction in venation has occurred independently once or several times within each family. By contrast all ants lack these two veins, including the earliest fossils from the Cretaceous, which implies that their loss constituted a single evolutionary event.

Comments

(i) The diagnostic characters mostly refer to extant/Tertiary formicids. In many Cretaceous fossil taxa the scape is short or very short and the funiculus flexuous, giving the antenna a distinctly wasp-like appearance. Sufficiently well-preserved *Sphecomyrminae fossils in amber confirm that this group certainly belongs in Formicidae, but subfamily *Armaniinae consists entirely of impression fossils in Cretaceous rock. Its strict position is debatable but it is retained here as an ant subfamily, as discussed under *Armaniinae.

(ii) Ergatoid queens occur in many subfamilies of ants (see Appendix 2, p. 274). Their morphology varies from being very similar to normal queens but never developing wings, through to the monstrous dichthadiiform queens of some dorylomorph and leptanillomorph subfamilies. Elsewhere in the Aculeata permanently wingless (apterous) females are encountered in the vespoid families Bradynobaenidae, Mutillidae, Rhopalosomatidae and Tiphidae, and in the chrysidoid families Bethyidae, Dryinidae, Embolemidae, Plumariidae and Sclerogibbidae.

(iii) The vast majority of Formicidae have two female castes, worker (ergates) and queen (gyne), but scattered through the family are taxa in which either of these may exist in more than one form and taxa in which one or the other female caste has dropped out. Females and males are usually highly sexually dimorphic, in general conspecific forms are not obviously associable. Males themselves are usually monomorphic but some dimorphic and ergatoid taxa occur. See Appendix 2 for distribution of these features through the formicid genera.

(iv) Formicidae ranges in time from Cretaceous (Albian, about 110 million years ago) to Recent. Subfamilies confined to the Cretaceous include *Armaniinae, *Brownimeciinae and *Sphecomyrminae. The extant and very successful modern subfamilies Formicinae and Dolichoderinae both have definite Cretaceous representatives (Turonian and Campanian respectively) and two other subfamilies that are still extant may also have been in existence then: Aneuretinae (Albian) and Ectatomminae (Campanian), though the attribution of the fossils to these last two subfamilies is not definite. The majority of extant subfamilies are restricted to the Tertiary, appearing in the Paleocene or early Eocene and continuing to the present. However, two Tertiary subfamilies, *Formiciinae (Middle Eocene) and the probably spurious *Paleosminthurinae (Miocene) are now wholly extinct. The time of appearance of subfamilies and genera in the fossil record is shown in Appendix 4 (p. 290).

Subfamily-rank taxa of Formicidae

Formicomorph subfamilies: Aneuretinae, Dolichoderinae, Formicinae.

Myrmeciomorph subfamilies: Myrmeciinae, Pseudomyrmecinae.

Dorylomorph subfamilies: Aenictinae, Aenictogitoninae, Cerapachyinae, Dorylinae, Ecitoninae, Leptanilloidinae.

Leptanillomorph subfamilies: Apomyrminae, Leptanillinae.

Poneromorph subfamilies: Amblyoponinae, Ectatomminae, Heteroponerinae, Paraponerinae, Ponerinae, Proceratiinae.

Myrmicomorph subfamilies: Agroecomyrmecinae, Myrmicinae.

Other (extinct) subfamilies: *Armaniinae (Cretaceous), *Brownimeciinae (Cretaceous), *Formiciinae (Eocene), *Sphecomyrminae (Cretaceous).

Incertae sedis: *Paleosminthurinae (Miocene).

The formicomorph subfamilies

Subfamilies Aneuretinae, Dolichoderinae, Formicinae.

Diagnosis

Clypeus broad from front to back. Antennal sockets inclined upward toward midline of head (note 1) and situated well behind anterior margin of head. Promesonotal suture usually present and flexible, the pronotum and mesonotum capable of movement relative to each other (note 2). *Dorsal cuticular flap of metapleural gland reduced anteriorly and extended posteromedially* (note 3). Propodeal lobes absent (note 4). Waist of one segment, the petiole, with complete tergosternal fusion (note 5) (also in male). Helcium sternite small

and retracted, overlapped by the tergite (note 6) (also in male). Abdominal segment III (first gastral) without or with partial tergosternal fusion (note 7) (also in male), segment IV without tergosternal fusion. Abdominal segments IV - VII without differentiated presclerites (also in male). Stridulitrum absent from abdominal tergite IV. Abdominal tergites IV - VI hypertrophied with respect to their sternites (note 8). *Postpygidial glands absent* (note 9). Pretarsal claws without a preapical tooth on the inner margin (also in male). Sting apparatus with furcula reduced and fused to sting base, or lost (note 10). Jugal lobe absent from hindwing of alates. [Synopsis, p. 79.]

Notes

(1) Antennal sockets that are horizontal and in the plane of the transverse axis of the head, such as are present in the dorylomorphs and leptanillomorphs, are perhaps best regarded as the plesiomorphic condition. The proceratiines exhibit this feature but there it appears secondary. Inclined to vertical antennal sockets are universal in formicomorphs, myrmeciomorphs, myrmicomorphs and many poneromorphs.

(2) In a few Formicinae the promesonotal suture may be present but fused and immobile; very rarely the suture may be vestigial or even absent (*Echinopla*, a few *Polyrhachis* species). For distribution of the character through the family see notes under myrmicomorph subfamilies.

(3) Metapleural gland is secondarily absent in some Formicinae; for distribution of the character in the subfamily see under Camponotini.

(4) Propodeal lobes are present only in *Oecophylla* and are regarded as independently evolved in that genus.

(5) Tergosternal fusion of the petiole is universal in the formicomorph subfamilies, the myrmicomorphs, and the subfamilies Leptanillinae and Leptanilloidinae. In the poneromorphs it occurs in Paraponerini, Proceratiini, Typhlomyrmecini and some Ectatommini; it is partial (anterior) in Amblyoponini. The fusion is regarded as independently acquired in each of these.

(6) This is the usual, and probably plesiomorphic, condition in most formicid groups. For different helcium structures, in which the sternite bulges ventrally, see notes under dorylomorph subfamilies and under Myrmicinae.

(7) In many dolichoderine genera and in the formicine tribe Plagiolepidini the basal part of abdominal segment III, close to the helcium, has tergosternal fusion with complete obliteration of the suture, but posterior to this the sclerites are not fused and the tergite regularly overlaps the sternite. For distribution of this character through the family see notes under dorylomorph subfamilies.

(8) The sternites of abdominal segments IV - VI are small relative to the tergites, and often are entirely ventral; the tergites comprise most of the sides and usually also lap extensively onto the ventral surface of each segment. A similar hypertrophy of abdominal tergite IV occurs in some myrmicine tribes. In *Tatuidris* (Agroecomyrmecini), Proceratiini, *Loboponera* (Ponerini) and some species of *Gnamptogenys* (Ectatommini), abdominal sternite IV is reduced, but in all these the reduction is associated with a corresponding expansion and strong vaulting of the fourth tergite and reduction of succeeding segments.

(9) Postpygidial glands are also absent in Myrmicinae.

(10) Fusion or loss of the furcula from the sting apparatus is also found in the dorylomorph subfamilies, some leptanillomorphs and in those Myrmicinae that have reduced stings. It is probably apomorphic in each case.

Comments

(i) The three formicomorph subfamilies form a monophyletic group but there is still ambiguity concerning the phylogenetic relationships among them, and concerning the identity of their sister-group. It is suspected, but still remains to be conclusively proved, that the myrmeciomorphs constitute the sister-group, though the extinct *Formiciinae may also be a candidate for this status.

(ii) Dolichoderinae and Formicinae are certainly monophyletic but some slight uncertainty must remain about Aneuretinae because there is only one extant monotypic genus that can be intensively studied and all other genus rank taxa are fossils; see comments under

Aneuretinae.

(iii) With some exceptions (*Dolichoderus*, many camponotines and particularly *Echinopla*) the cuticle of formicomorphs is thin and flexible, much more so than in any other group.

(iv) The males of many individual dolichoderine and formicine genera can be recognised, but as yet no characters have been found to distinguish male Formicinae as a group from male Dolichoderinae as a group.

SUBFAMILY ANEURETINAE

Diagnosis

With characters of formicomorph subfamilies. Metacoxal cavities open (note 1). *Petiole with a long anterior peduncle. Helcium attached high on anterior face of abdominal segment III (first gastral).* Helcium tergite dorsally without a U-shaped emargination in its anterior margin. Pygidium large, simple. Pavan's gland present, with reservoir sac (note 2). Cloacal gland absent. Sting present and fully functional. *Larva with abundant spinules.* Larval sericteries wide and salient. Pupae with cocoons. [Synopsis, p. 79.]

Notes

(1) In *Aneuretus* the open metacoxal cavities, immarginate helcium and presence of a functional sting define the genus well among the formicomorphs, but all are plesiomorphies whose apomorphic states are expressed in both Dolichoderinae and Formicinae.

(2) Otherwise found only in Dolichoderinae.

Comments

(i) The characters above are based mainly on the sole extant genus, *Aneuretus*; no certain apomorphy that includes the extant and all the extinct genera of this group has been found. All included fossil genera have a long anterior peduncle on the petiole but based on the available, perhaps not very accurate, illustrations of the fossil taxa, only **Aneuretellus* and **Protaneuretus* also appear to have the helcium located high on abdominal segment III.

(ii) The propodeum is bispinose in the extant *Aneuretus* but is unarmed in some fossil taxa. Throughout the formicomorphs the usual condition of the propodeum is unarmed, but some members of both Dolichoderinae and Formicinae have denticles, teeth or spines present, or rarely strange dentiform tubercles that bear the spiracles.

Tribe-rank taxon of Aneuretinae: Aneuretini.

Tribe ANEURETINI

Diagnosis: as subfamily.

Genus-rank taxa of Aneuretini: **Aneuretellus*, *Aneuretus*, **Mianeuretus*, **Paraneuretus*, **Protaneuretus*.

Incertae sedis in Aneuretinae: **Burmomyrma*.

SUBFAMILY DOLICHODERINAE

Diagnosis

With characters of formicomorph subfamilies. Metacoxal cavities fully closed by a slender bar of cuticle, without a suture in the annulus (note 1) (also in male). Helcium attached low on anterior face of abdominal segment III (first gastral) (also in male). Helcium tergite dorsally with an extensive U-shaped emargination in its anterior margin (note 2) (also in male). Pygidium small or very small, simple (note 3). *Junction of pygidium and hypopygium slit-like.* Proventriculus sclerotised in some (note 4). Pavan's gland present, with reservoir sac (note 5). Cloacal gland present. *Sting vestigial and not functional.* *Cyclopentanoid monoterpenes (iridoids) produced by pygidial glands.* *Larva with reduced hairs; larval maxillary palp and galea reduced to sensilla; larval sericteries small and neck*

reduced. Pupae naked. [Synopsis, p. 80.]

Notes

(1) Fully closed metacoxal cavities, without a suture in the annulus, are extensively distributed in the family but only in Dolichoderinae and Formicinae is the closure achieved by a thin cuticular bar and is probably a synapomorphy of the two. Elsewhere where metacoxal cavity closure is complete and the annulus lacks a suture (all dorylomorphs, leptanillomorphs, myrmicomorphs, Pseudomyrmecinae and a few poneromorphs), the cuticular annulus is broad and strongly constructed.

(2) A similar and probably synapomorphic emargination of the helcium occurs only in Formicinae.

(3) In some genera the pygidium is reflexed so that it is on the ventral surface of the gaster, overhung and concealed by abdominal tergite VI (fourth gastral).

(4) Sclerotisation is not universal in dolichoderines; otherwise it occurs only in the Formicinae.

(5) Otherwise found only in Aneuretinae.

Comments

(i) A notable feature of Dolichoderinae is the prevalence of teeth or denticles on the mandible proximal of the basal angle, either just proximal or along most of the length of the basal margin [Appendix 2]. Only in the genera *Anillidris*, *Bothriomyrmex*, *Forelius*, *Loweriella* and *Papyrius* is such basal margin dentition entirely absent. The basal margin is unarmed in *Aneuretus* and in all the Formicinae except for a few species of *Anoplolepis* and *Lasius*, where 1 - 2 small teeth sometimes occur close to the basal angle.

(ii) The several tribes formerly included in this subfamily were abandoned by Shattuck (1992c). The failure of later cladistic morphological or molecular surveys to aggregate groups of genera in any consistent manner (Shattuck, 1995; Brandão, Baroni Urbani, *et al.*, 1998; Chiotis, Jermin & Crozier, 2000) tends to indicate that Shattuck's original decision was justified.

(iii) Most members of the subfamily have a quite consistent appearance in full-face view, the "dolichoderine face". The eyes are at or in front of the midlength of the head and are set in from the sides (i.e. the eyes have migrated somewhat dorsally and the lateral outline of the head is outside the outer margin of the eye); the frontal carinae are narrow but sharply defined; the antennal sockets indent the posterior margin of the long, broad clypeus and the median portion of the clypeus projects back between the anterior margins of the sockets.

There are, of course, exceptions to each feature but the overall appearance, across the entire subfamily, is striking. *Aneuretus* has a similar face but the combination of features and overall aspect is rare in Formicinae and extremely rare elsewhere in the family.

(iv) Taxonomy of the extant genera has been intensively studied and straightened out in recent years but many of the numerous fossil genera listed below are inadequately characterised and their status is dubious; a critical review and analysis of the fossil genera is long overdue.

Tribe-rank taxon of Dolichoderinae: Dolichoderini.

Tribe DOLICHERINI

[= Anonychomyrmini, = Axinidriini, = Leptomyrmicini, = Liometopini, = *Miomyrmicini, = *Pityomyrmecini, = Tapinomini, = *Zherichiniini].

Diagnosis: as subfamily.

Genus-rank taxa of Dolichoderini (extant): *Amyrmex*, *Anillidris*, *Anonychomyrma*, *Axinidris*, *Azteca*, *Bothriomyrmex*, *Doleromyrma*, *Dolichoderus*, *Dorymyrmex*, *Ecphorella*, *Forelius*, *Froggattella*, *Iridomyrmex*, *Leptomyrmex*, *Linepithema*, *Liometopum*, *Loweriella*, *Ochetellus*, *Papyrius*, *Philidris*, *Tapinoma*, *Technomyrmex*, *Turneria*.

Genus-rank taxa of Dolichoderini (extinct): **Alloiomma*, **Asymphyomyrmex*, **Ctenobethylus*, **Elaeomyrmex*, **Elaphrodites*, **Emplastus*, **Eotapinoma*, **Eurymyrmex*, **Kotshkorkia*, **Leptomyrmula*, **Miomyrmex*, **Petraeomyrmex*, **Pityomyrmex*,

**Protazteca*, **Zherichinius*.

SUBFAMILY FORMICINAE

Diagnosis

With characters of formicomorph subfamilies. Metacoxal cavities fully closed by a slender bar of cuticle, without a suture in the annulus (note 1) (also in male). Helcium usually attached low on anterior face of abdominal segment III (first gastral) (note 2) (also in male). Helcium tergite dorsally with an extensive U-shaped emargination in its anterior margin (note 3) (also in male). Pygidium simple. *Acidopore present at apex of hypopygium. Formic acid producing glands present. Sting vestigial to absent, not functional; lancets disarticulated from sting.* Proventriculus sclerotised (note 4). Pavan's gland absent. *Pygidial gland absent.* Cloacal gland usually present (note 5). Pupal cocoons absent or present (note 6). [Synopsis, p. 93.]

Notes

(1) Closure of the metacoxal cavities in this way is duplicated only in Dolichoderinae; see note (1) there.

(2) Helcium is attached relatively high on abdominal segment III only in *Oecophylla*. The change from the low position otherwise universal in Formicinae is secondary and is associated with the ability to reflex the gaster over the alitrunk. This is unique to *Oecophylla* in this subfamily; elsewhere the ability is found only in the myrmecines *Crematogaster* and, to a lesser extent, *Recurvidris*.

(3) Some species or species groups in genera *Polyrhachis* and *Echinopla* (Camponotini) have the emargination of the anterior margin of the helcium tergite reduced, vestigial, or even absent; this is certainly a secondary adaptation. A similar and probably synapomorphic emargination of the helcium is present throughout the Dolichoderinae but does not occur anywhere else in the family Formicidae.

(4) Proventriculus is also sclerotised in many Dolichoderinae.

(5) Cloacal gland is absent only in *Oecophylla*, perhaps secondarily so.

(6) Formicinae is polymorphic in terms of pupal cocoons. They are regularly absent in nest-weaving forms and sporadically also absent elsewhere in the subfamily.

Comments

(i) This is one of the most easily diagnosed and longest-established of the formicid subfamilies. The taxonomic history of Formicinae has recently been extended back to the Cretaceous (Grimaldi & Agosti, 2000).

(ii) The earlier higher classifications of Formicinae (Forel, 1912f; Emery, 1925b), which were more or less adhered to until relatively recently, were largely founded on the morphology of the proventriculus. There are now serious doubts about the assumption that the sepalous proventriculus has arisen only once in the subfamily, and about the evolution and distribution of other aspects of the organ's morphology, so that a proventriculus-based classification has become unstable and cannot be maintained (see also comments under Melophorini). The outline of an alternative system has been proposed by Agosti (1991) and is adapted and expanded here.

Tribe-rank taxa of Formicinae: Camponotini, Formicini, Gesomyrmecini, Gigantiopini, Lasiini, Myrmecorhynchini, Myrmoteratini, Notostigmatini, Oecophyllini, Plagiolepidini.

The lasiine tribe group

Tribes Lasiini, Myrmoteratini, Plagiolepidini.

Diagnosis

With characters of Formicinae. Propodeal spiracle circular or subcircular. *Metacoxae widely separated* (note 1). *Petiolear foramen long* (note 2). *Ventral margin of petiole U-shaped in section.*

Notes

(1) In ventral view the bases of the metacoxae are widely separated when the coxae are directed at a right-angle to the long axis of the alitrunk. Distance between the bases of the mesocoxae in this orientation is much less than the distance between the bases of the metacoxae. Widely separated metacoxae, together with the apparently associated character of long petiolar foramen, is encountered in tribes Lasiini, Plagiolepidini and Myrmoteratini and is considered apomorphic; the condition is possibly a synapomorphy of these three tribes and is assumed to be so here. Elsewhere in the Formicinae similarly widely separated metacoxae have been found only in a few species of *Cerapachys* (Cerapachyinae); these do not have an associated long petiolar foramen. In Myrmicinae the tribes Myrmicini and Tetramoriini mostly have a long petiolar foramen but the metacoxae remain closely approximated.

(2) The petiolar foramen [= the posteroventral cavity in the alitrunk in which the petiole articulates], seen in ventral view, is nominated as either short or long. In the former (short) the foramen does not extend anteriorly to the level of a line that spans the anteriormost points of the metacoxal cavities; this condition appears plesiomorphic and applies to all Formicinae except the lasiine tribe group. In the latter (long) the foramen extends anteriorly at least to the level of a line that spans the anteriormost points of the metacoxal cavities and usually farther.

Tribe LASIINI

[= *Acanthomyopsini*].

Diagnosis

With characters of Formicinae. Mandible with 4 - 11 teeth; tooth 3 from the apical usually reduced (note 1) (male mandible with 1 - 8 teeth). Palp formula usually 6,4 rarely reduced (note 2). Antennal sockets close to, abutting, or indenting the posterior clypeal margin. Propodeal spiracle at or near the declivity. Metacoxae widely separated (note 3). Petiolar foramen long (note 4). Ventral margin of petiole U-shaped in section. Abdominal sternite III (first gastral) with or without a transverse sulcus across the sclerite posterior to the helcium sternite (note 5). *Tergosternal suture of abdominal segment III (ventral view) extended laterally or curved forward (and usually also upward) on each side of the helcium, the suture then narrowly arches round and runs posteriorly.* Abdominal segment III on each side of the helcium without tergosternal fusion (also in male). Antenna with 7 - 12 segments (10 - 13 in male). [Synopsis, p. 94.]

Notes

(1) The third tooth is not reduced only in some species of *Acropyga*; see also under Camponotini (note 1).

(2) Palp formula is 6,4 except in *Acanthomyops*, *Acropyga*, some species of *Cladomyrma* and males of *Myrmecocystus*; see Appendix 2 for details.

(3) See under lasiine tribe group (note 1).

(4) See under lasiine tribe group (note 2).

(5) The presence or absence of this sulcus splits the tribe in two: in *Acanthomyops*, *Acropyga*, *Anoplolepis*, *Cladomyrma*, *Lasius* and *Myrmecocystus* it is absent; in the Neotropical *Lasiophanes* and the strictly Austral group of *Prolasius*, *Stigmacros* and *Teratomyrmex* it is present.

Comments

(i) In the long run it may be necessary to combine Lasiini and Plagiolepidini as a single tribe, for although the latter has numerous apomorphies the morphology of the tergosternal suture of abdominal segment III (first gastral) of lasiines seems merely a precursor of the plagiolepidine condition; see note (6) under Plagiolepidini.

(ii) The genus-group name *Zealleyella* is newly synonymised with *Anoplolepis*; see Appendix 1.1.

Genus-rank taxa of Lasiini: *Acanthomyops*, *Acropyga* (tribal transfer), *Anoplolepis* (tribal transfer); *Cladomyrma* (tribal transfer), *Lasiophanes* (tribal transfer), *Lasius*, *Myrmecocystus*, *Prolasius* (tribal transfer), *Stigmacros* (tribal transfer), *Teratomyrmex*.

Tribe **PLAGIOLEPIDINI**

[= *Brachymyrmecini* syn. n., = *Bregmatomyrmini* syn. n., = *Myrmelachistini* syn. n., = *Prenolepidii* syn. n.].

Diagnosis

With characters of Formicinae. Mandible with 4 - 7 teeth; tooth 3 from the apical usually reduced (note 1) (male mandible with 1 - 5 teeth). Palp formula frequently reduced from 6,4 (note 2). Antennal sockets close to, abutting, or indenting the posterior clypeal margin. Propodeal spiracle at or near the declivity. Metacoxae widely separated (note 3). Petiolar foramen long (note 4). Ventral margin of petiole U-shaped in section. *Scale/node of petiole inclined anteriorly or petiole with a long posterior peduncle, or often both* (note 5). Abdominal sternite III (first gastral) without a transverse sulcus across the sclerite posterior to the helcium sternite. *Base of abdominal segment III with complete tergosternal fusion on each side of the helcium; the free tergite and sternite commence some distance up the sclerite, well away from the helcium* (note 6) (also in male). *Anterior face of abdominal segment III overhangs at least the posterior peduncle of the petiole* (note 7). Antenna with 9 - 12 segments (9 - 13 in male). [Synopsis, p. 100.]

Notes

- (1) The third tooth from the apical is not reduced only in *Euprenolepis*, in some species of *Pseudolasius* and in the suspected socially parasitic queen of *Bregmatomyrma*. See also under Camponotini (note 1).
- (2) PF 6,4 is the main or sole count in about half the plagirolepidine genera, others have much reduced palp formulae, see Appendix 2 for details.
- (3) See under lasiine tribe group (note 1).
- (4) See under lasiine tribe group (note 2).
- (5) The petiole scale in profile is usually distinctly inclined anteriorly, with a relatively short anterior face and a much longer, more shallowly sloped, posterior face. The latter is confluent with a relatively long posterior peduncle. In taxa where the scale is more erect than usual this basic shape remains the same. The only known exception is *Bregmatomyrma*, a monotypic genus known only from queens and suspected of being socially parasitic (has aspects of inquiline syndrome and lacks the metapleural gland).
- (6) The fused condition of the tergosternum basally on abdominal segment III (first gastral) appears to be a direct development from the lasiine condition. The tergosternal margins that curve forward and upward on each side of the helcium in lasiines have become completely fused in plagirolepidines and no trace of their separate margins remains. As a result of this the portions of the tergal and sternal sclerites that remain separated commence high on the segment, close to the point where the top of the anterior face of segment III meets the dorsum.
- (7) In profile the anterior face of abdominal segment III slopes forward and overhangs at least the posterior peduncle of the petiole. Frequently the scale itself, or at least its posterior surface, is also overhung (see comments, below).

Comments

- (i) Combined with the abdominal specialisations noted above, most plagirolepidines have a median vertical impression in the anterior face of abdominal segment III that extends the entire height of the surface. The impression is not obvious in species of *Plagirolepis*, *Lepisiota* and *Myrmelachista* where the anterior face of segment III is short, or where the petiole has developed a long posterior peduncle. A concavity in the anterior face of segment III, immediately behind the petiole scale, is present in some species of *Lasius* and *Acropyga* (Lasiini) but there it is not as sharply defined or as deep as in plagirolepidines.
- (ii) The genus-group names *Mesanoplolepis* and *Anacantholepis* are newly synonymised with *Tapinolepis* and *Plagirolepis* respectively; see Appendix 1.1 and 1.2.

Genus-rank taxa of Plagiolepidini: *Agraulomyrmex*, *Aphomomyrmex* (tribal transfer), *Brachymyrmex* (tribal transfer), *Bregmatomyrma* (tribal transfer), *Euprenolepis* (tribal transfer), *Lepisiota*, *Myrmelachista* (tribal transfer), *Paratrechina* (tribal transfer), *Petalomyrmex* (tribal transfer), *Plagiolepis*, *Prenolepis* (tribal transfer), *Pseudolasius* (tribal transfer), *Pseudaphomomyrmex* (tribal transfer), *Tapinolepis* (stat. n.).

Tribe MYRMOTERATINI

Diagnosis

With characters of Formicinae. *Eye enormous*, abutting clypeal margin anteriorly and extending back almost to occipital margin posteriorly (note 1); long axes of eyes convergent anteriorly. *Mandible linear and extremely elongate, with 8 - 16 teeth; with kinetic mode of action and capable of opening to about 270°* (note 2) (male mandible edentate). Clypeus extends back between eyes but does not extend back between antennal sockets; the latter located between the eyes and far behind the posterior clypeal margin. *Frontal carinae absent, antennal sockets bounded only by toruli. Vertical posterior surface of head with a transverse groove and a thick cuticular collar above the occiput* (also in male). Metacoxae widely separated (note 3). Ventral margin of petiole U-shaped in section. Abdominal sternite III (first gastral) usually with a transverse sulcus across the sclerite posterior to the helcium sternite (note 4). Antenna with 12 segments (13 in male). [Synopsis, p. 107.]

Notes

- (1) See also Gigantiopini (note 1) and Gesomyrmecini (note 4).
- (2) Kinetic mandibles with an enormous gape have evolved once in Formicinae (*Myrmoterias*), once in Ponerini (*Anochetus* + *Odontomachus*), and several times independently within the myrmicine tribe Dacetini.
- (3) See under lasiine tribe group (note 1).
- (4) In some species the transverse sulcus is quite easily visible, but in others its presence is dubious or not apparent.

Comments

The palp formula in *Myrmoterias* is extremely variable among its species, see Appendix 2 for details.

Genus-rank taxon of Myrmoteratini: *Myrmoterias*.

Tribes not included in either group

Tribes Gesomyrmecini, Myrmecorhynchini.

Tribe GESOMYRMECINI

[= Dimorphomyrmii, = Gesomyrmini, = Santschiellini **syn. n.**, = *Sicelomyrmicini **syn. n.**].

Diagnosis.

With characters of Formicinae. Palp formula 6,4. Mandible with 6 - 10 teeth (note 1). *Eye large to enormous* (note 2); long axes of eyes convergent anteriorly. *Scape, when laid back in its normal resting position, passes below the eye* (note 3). *Antennal insertions migrated laterally and widely separated, in line with long axis of eye and in front of anterior margin of eye* (note 4). Clypeus extends back between antennal sockets, the latter close to or abutting the posterior clypeal margin. Propodeal spiracle circular. Metacoxae closely approximated (note 5). Petiolar foramen short (note 6). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) with a transverse sulcus across the sclerite posterior to the helcium sternite. Antenna with 8, 10 or 12 segments (male with 11 antennomeres in *Gesomyrmex*). [Synopsis, p. 107.]

Notes

- (1) Tooth 3 from the apical is reduced in minor workers of *Gesomyrmex* but not in majors.
- (2) See under Gigantiopini (note 1).
- (3) Elsewhere in Formicidae scapes that pass below the eyes occur only in some myrmicines (Cataulacini, Basicerotini, some Dacetini). *Paraponera* (Paraponerini) has bipartite scrobes with an upper portion above the eye and a lower portion below it; the scape passes above the eye.
- (4) Although the antennal sockets of gesomyrmecines are in front of the long axes of the eyes each socket lies laterad of a line that would extend the inner margin of the eye anteriorly. In other giant-eyed formicine taxa (Gigantiopini, Myrmoteratini) the antennal sockets lie mesad of the inner margins of the eyes and are far posterior to the anterior margins of the eyes.
- (5) See under lasiine tribe group (note 1).
- (6) See under lasiine tribe group (note 2).

Genus-rank taxa of Gesomyrmecini: *Gesomyrmex*, *Santschiella* (tribal transfer), **Sicilomyrmex* (tribal transfer).

*Uncertain sedis: *Prodimorphomyrmex.*

Tribe MYRMECORHYNCHINI stat. rev.

Diagnosis

With characters of Formicinae. Palp formula 6,4. Mandible with 6 - 13 teeth; tooth 3 from the apical reduced. Antennal sockets close to or abutting the posterior clypeal margin. Propodeal spiracle circular to subcircular, in profile anterior to propodeal declivity. Metacoxae closely approximated (note 1). Petiolar foramen short (note 2). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) with a transverse sulcus across the sclerite posterior to the helcium sternite. Antenna with 12 segments (13 in male). [Synopsis, p. 109.]

Notes

- (1) See under lasiine tribe group (note 1).
- (2) See under lasiine tribe group (note 2).

Comments

(i) Myrmecorhynchini contains a strictly Austral group of perhaps disparate small genera, left after the isolation of *Melophorus* as the sole genus of tribe Melophorini and the transfer of *Lasiophanes* and *Prolasius* from Melophorini to Lasiini.

(ii) The tribe is interesting as it shares the plesiomorphic metacoxal and petiolar characters of Gesomyrmecini plus the formicine tribe group, but lacks the apomorphies of either of these. The validity of the tribe is suspicious and needs more analysis.

Genus-rank taxa of Myrmecorhynchini: *Myrmecorhynchus*, *Notoncus* (tribal transfer), *Pseudonotoncus* (tribal transfer).

The formicine tribe group

Tribes Camponotini, Formicini, Gigantiopini, Melophorini, Notostigmatini, Oecophyllini.

Diagnosis

With characters of Formicinae. *Propodeal spiracle elliptical to slit-shaped* (note 1). Metacoxae closely approximated (note 2). Petiolar foramen short (note 3). Ventral margin of petiole V-shaped in section.

Notes

- (1) The elliptical to slit-shaped propodeal spiracle is usually quite conspicuous. It is generally high on the side in Formicini, Notostigmatini and Melophorini, shifted back and down on the sclerite in Camponotini, Gigantiopini and Oecophyllini. The development of

this shape is regarded as a synapomorphy here. In general the spiracle shape is apparent but in some large genera within tribes Camponotini and Formicini there are individual species or species groups in which the spiracle is very reduced in size relative to what is usual, and in these few the shape is less obvious. In some of them the actual orifice of the spiracle remains elliptical or slit-shaped although the spiracular sclerite itself has reverted to a less obviously elliptical form.

(2) See under lasiine tribe group (note 1).

(3) See under lasiine tribe group (note 2).

Tribe OECOPHYLLINI

Diagnosis

With characters of Formicinae. Mandible with 9 - 16 teeth; tooth 3 from the apical reduced. Palp formula 5,4 (also in male). Clypeus very long from front to back. Antennal sockets located between the eyes, well behind the posterior clypeal margin. Eyes at midlength of head. Ocelli absent. *First funicular segment of antenna very elongate* (also in male). Metapleural glands absent (note 1). *Propodeal lobes present* (note 2). Propodeal spiracle low on side, elliptical. Metatibial spur vestigial or absent. Metacoxae closely approximated (note 3). Petiolar foramen short (note 4). Petiole elongate and low, its ventral margin V-shaped in section. *Helcium in profile at about midheight of abdominal segment III (first gastral)* (note 5), the latter without a vertical anterior face above the helcium. Abdominal sternite III without a transverse sulcus across the sclerite posterior to the helcium sternite. Tergosternal suture of abdominal segment III (ventral view) not curved forwards and upwards on each side of helcium; without tergosternal fusion on each side of the helcium. *Gaster capable of reflexion over the alitrunk*. Rectal glands present. *Male pretarsal claws vestigial*. Antenna with 12 segments (13 in male). [Synopsis, p. 110.]

Notes

(1) Metapleural glands are also absent from a number of camponotine genera and species and from some inquilines; they are otherwise universal in females of Formicinae.

(2) Propodeal lobes are otherwise absent throughout the formicomorph subfamilies, although they are developed elsewhere in the family. For distribution of character see notes under myrmeciomorph subfamilies.

(3) See under lasiine tribe group (note 1).

(4) See under lasiine tribe group (note 2).

(5) Helcium is attached close to midheight of anterior face of abdominal segment III in both extant species. In some fossil species the helcium appears to be attached lower on the anterior face (**O. brischkei*, **O. brevinodis*), but this may be an artifact of the illustrations.

Genus-rank taxon of Oecophyllini: *Oecophylla*.

Tribe GIGANTIOPINI

Diagnosis

With characters of Formicinae. Palp formula 6,4 (also in male). *Eye enormous, extending from posterior clypeal margin to occiput* (note 1); inner margin of eye straight to shallowly convex. Ocelli present. Clypeus longitudinally carinate, long from front to back, not extending back between antennal sockets. Antennal sockets between the eyes and close to, but not abutting, the posterior clypeal margin. Mandible with 10 teeth; tooth 3 from the apical reduced. Metathoracic spiracle lateral. Propodeal spiracle low on side, elliptical. Metacoxae closely approximated (note 2). Petiolar foramen short (note 3). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) without a transverse sulcus across the sclerite posterior to the helcium sternite. Tergosternal suture of abdominal segment III (ventral view) is not curved forwards and upwards on each side of helcium; there is no tergosternal fusion. Antenna with 12 segments (13 in male). [Synopsis, p. 111.]

Notes

- (1) Extremely large eyes are also found in Gesomyrmecini and Myrmoteratini, as well as Gigantiopini. However, the location and morphology of other cephalic structures, as well as the tribe group characters utilised here, are very different. This implies the separate evolution of enormous eyes in each of the three. See also under Gesomyrmecini (note 4).
- (2) See under lasiine tribe group (note 1).
- (3) See under lasiine tribe group (note 2).

Genus-rank taxon of Gigantiopini: *Gigantiops*.

Tribe CAMPONOTINI

[= Polyrhachidini].

Diagnosis

With characters of Formicinae. Mandible with 5 - 8 teeth that decrease in size from the apical; *tooth 3 from the apical not reduced* (note 1). Palp formula 6,4 (note 2) (also in male). *Antennal sockets situated a considerable distance behind the posterior clypeal margin* (note 3). Ocelli absent (note 4). Eyes usually distinctly behind midlength of head (note 5). Frontal carinae strongly developed. Propodeal spiracle broadly oval, elliptical or slit-shaped; spiracle usually low on side, close to declivity, or both (note 6). Metapleural gland present or absent (note 7). Metacoxae closely approximated (note 8). Petiolar foramen short (note 9). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) with a transverse sulcus or flexible suture across the sclerite posterior to the helcium sternite. Male mandible with apical tooth followed by a cleft in the margin, usually without other teeth. Male genitalia small relative to size of gaster; cerci present. Antenna with 12 segments (13 in male). *Larva with chiloscleres present on labrum; larva with praesaepium*. [Synopsis, p. 111.]

Notes

- (1) The very common and apparently ancestral Formicinae dental pattern (present in Cretaceous species) in which tooth 3 from the apex is distinctly reduced in size compared to tooth 4, is entirely absent from Camponotini. Other formicines in which the third tooth is not reduced include *Myrmoteras* (Myrmoteratini, but here the mandibles are linear and bizarre); *Alloformica*, *Cataglyphis*, *Proformica* and *Rossomyrmex* (Formicini, perhaps a synapomorphy of these four genera); major but not minor workers of *Gesomyrmex* (Gesomyrmecini); *Euprenolepis*, some species of *Pseudolasius* and the suspected social parasite *Bregmatomyrma* (Plagiolepidini); some species of *Acropyga* (Lasiini). Individual species in some camponotine genera may have the basal tooth larger than the prebasal.
- (2) A single species of *Camponotus* (*C. megalonyx*) has the palp formula reduced to 5,4.
- (3) Assuming that the posterior migration of the sockets has been achieved independently in *Oecophylla* and *Notostigma*.
- (4) Workers of some species of the *Polyrhachis bihamata* group have ocelli present and the largest workers of some *Camponotus* may develop a single median ocellus.
- (5) In a few *Camponotus* (*Colobopsis*) the eyes have secondarily migrated to a more anterior position.
- (6) Exceptions occur in *Echinopla* and some *Camponotus* species.
- (7) Metapleural gland is secondarily absent in all *Forelophilus*, *Polyrhachis* and *Phasmomyrmex* species, and in all but two *Camponotus* species. Elsewhere in Formicinae the metapleural gland is also absent in *Oecophyllini* and the suspected social parasite *Bregmatomyrma* (Plagiolepidini).
- (8) See under lasiine tribe group (note 1).
- (9) See under lasiine tribe group (note 2).

Comments

- (i) *Forelophilus* and *Overbeckia* are both probably synonymous with *Camponotus*, as that huge and amorphous genus is currently defined. The genus-rank and subgenus-rank taxonomy of the tribe is in urgent need of attention. *Camponotus* has dozens of meaningless

subgenera and the subgenera within *Polyrhachis*, despite recent work, refuse to make sense.

(ii) The genus-group name *Dolophra* is newly synonymised with *Camponotus* (*Colobopsis*); see Appendix 1.3.

Genus-rank taxa of Camponotini: *Calomyrmex*, **Camponotites*, *Camponotus*, **Chimaeromyrma*, *Echinopla*, *Forelophilus*, *Opisthopsis*, *Overbeckia*, *Phasmomyrmex*, *Polyrhachis*, **Pseudocamponotus*.

Tribe NOTOSTIGMATINI trib. n.

Diagnosis

With characters of Formicinae. Mandible with 11 - 13 teeth; tooth 3 from the apical reduced. Palp formula 6,4. Antennal sockets situated a considerable distance behind the posterior clypeal margin (note 1). Ocelli present. Eyes behind midlength of head. Propodeal spiracle slit-shaped, high on side and considerably forward from declivity. Metatibia ventrally with a double longitudinal row of stout setae (note 2). Metatibial spur pectinate. Metacoxae closely approximated (note 3). Petiolar foramen short (note 4). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) with a transverse sulcus across the sclerite posterior to the helcium sternite. *Male mandible large, 10-dentate*. Antenna with 12 segments (13 in male). Larval chiloscleres and praesaepium absent. [Synopsis, p. 126.]

Notes

(1) Antennal sockets are similarly located in *Oecophylla* and Camponotini.

(2) A double row of stout setae on the ventral metatibia is also characteristic of Formicini and Melophorini.

(3) See under lasiine tribe group (note 1).

(4) See under lasiine tribe group (note 2).

Comments

Notostigma shows a strange combination of Formicini and Camponotini characters but does not fit comfortably into either tribe as they are currently defined. The relationships between these tribes, and others in the formicine group, needs detailed phylogenetic investigation. In the system adopted here both Formicini and Camponotini become more sharply defined with the removal of *Notostigma*, but the truth of the matter may be that all these taxa constitute a single unit. *Notostigma* is therefore isolated in its own tribe for the present, to indicate that it is the centre of an area of confusion and indecision.

Genus-rank taxon of Notostigmatini: *Notostigma* [type-genus].

Tribe FORMICINI

Diagnosis

With characters of Formicinae. Mandible with 5 - 10 teeth (note 1). Palp formula 6,4 (note 2) (also in male). Antennal sockets close to or abutting the posterior clypeal margin; clypeus extends back between anterior margins of toruli. Ocelli present. Eyes located behind midlength of head. Propodeal spiracle elliptical to slit-shaped, high on the side. *Metatibia ventrally with a double longitudinal row of stout setae* (note 3). Metacoxae closely approximated (note 4). Petiolar foramen short (note 5). Ventral margin of petiole V-shaped in section. Abdominal sternite III (first gastral) with a transverse sulcus or flexible suture across the sclerite posterior to the helcium sternite. Male genitalia large relative to size of gaster; cerci present. Antenna with 12 segments (13 in male). Larval chiloscleres and praesaepium absent. [Synopsis, p. 126.]

Notes

(1) Mandible falcate and edentate in the dulotic genus *Polyergus* and in largest workers of

Cataglyphis bombycinus. Among normally dentate forms tooth 3 from the apical is reduced in *Formica* and *Bajcaridris* but not in the other formicine genera.

(2) Reduction in palp formula to 5,4 occurs in some individual workers of one species of *Formica*; PF 4,3 or 4,2 occurs in *Polyergus* [Appendix 2].

(3) In some members of the *Formica exsecta* group the double setal row has been lost. A similar double row is seen in Notostigmatini and most Melophorini.

(4) See under lasiine tribe group (note 1).

(5) See under lasiine tribe group (note 2).

Comments

The apparent apomorphic characters regarding shape of propodeal spiracle and arrangement of metatibial setae are duplicated in Notostigmatini and *Melophorus*. However, the proventriculus of *Notostigma* and all Formicini genera is sepalous, and quite different from that of *Melophorus*; see comments under the latter.

Genus-rank taxa of Formicini: *Alloformica*, *Bajcaridris*, *Cataglyphis*, *Formica*, **Glaphyromyrmex*, *Polyergus*, *Proformica*, **Protoformica*, *Rossomyrmex*.

Tribe MELOPHORINI

Diagnosis

With characters of Formicinae and duplicating the characters of Formicini except for: average fewer teeth on masticatory margin of mandible (3 - 6); eyes close to midlength in some species (especially those in which the head is extremely short and broad); double setal row on the ventral metatibia is reduced in length and number of component setae in some species. Proventriculus is not sepalous (see comments). [Synopsis, p. 130.]

Comments

Throughout tribes Camponotini, Notostigmatini and Formicini the proventriculus bears four long sepals on the calyx; in *Melophorus* these sepals are absent. Sepalous proventriculi are also universal in Gesomyrmecini, Oecophyllini and Gigantiopini, but genera which possess proventricular sepals occur together with those that lack them, or those which have incipient sepals, in other main tribes of Formicinae.

Genus-rank taxon of Melophorini: *Melophorus*.

Incertae sedis in Formicinae: **Imhoffia*, **Kyromyrma*, **Leucotaphus*, **Protrechina*, **Tylolasius*.

Collective group name in Formicinae: **Formicites*.

The myrmeciomorph subfamilies

Subfamilies Myrmeciinae, Pseudomyrmecinae.

Diagnosis

Antennal sockets inclined upward toward midline of head (note 1). *Sensilla basiconica* of antenna with socket raised above the cuticular surface. Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other (note 2). Metanotum present on dorsal alitrunk. Metapleural gland orifice not concealed by a broad cuticular flange or flap. Propodeal lobes present (note 3). *Metabasitarsal sulcus* present (note 4). Metatibia with 2 spurs, posterior spur largest and usually pectinate (note 5). Pretarsal claws each with a preapical tooth on the inner margin (note 6). Petiole without tergosternal fusion. Helcium sternite small and retracted, overlapped by the tergite. Waist of one or two segments but abdominal segment III always smaller than IV. Abdominal segments III and IV without tergosternal fusion (also in male). Spiracles of abdominal segments V - VII concealed by posterior margins of preceding tergites. Sting present, usually strongly developed. [Synopsis, p. 131.]

Notes

- (1) For distribution of character see notes under formicomorph subfamilies.
- (2) For distribution of character see notes under myrmicomorph subfamilies.
- (3) Propodeal lobes are absent in the leptanillomorphs, present in the myrmeciomorphs and poneromorphs, variously absent or present in the dorylomorph subfamilies. In myrmicomorphs propodeal lobes are absent in *Melissotarsini* and *Crematogaster*, reduced to narrow carinae or absent in *Myrmicaria*; in formicomorphs they are present only in *Oecophylla*.
- (4) The metabasitarsal sulcus is secondarily absent from *Pseudomyrmex* (Pseudomyrmecinae); a similar sulcus appears in the poneromorph genus *Paraponera* (Paraponerini), presumably convergently.
- (5) Posterior metatibial spur is spiniform and not pectinate only in the *Myrmecia cephalotes* species group.
- (6) The preapical tooth of the pretarsal claw is reduced or absent in a few small *Tetraponera* species.

SUBFAMILY MYRMECIINAE

Diagnosis

With characters of myrmeciomorph subfamilies. *Mandible multidentate and elongate*. Median portion of clypeus short but posteriorly extended back between the antennal sockets. Eyes large and prominent. *Metapleural gland orifice relatively widely separated from ventral margin of metapleuron*. Orifice of propodeal spiracle slit-shaped. Metacoxal cavities open. *Sting bulb gland present* (note 2). Jugal lobe present on hindwing of alates (note 1). Palp formula 6,4. Antenna filiform, with 12 segments (13 in male and with very short stout scape). [Synopsis, p. 131.]

Notes

- (1) Jugal lobe of the hindwing is also present in a number of poneromorphs which, as a whole, are highly polymorphic for this character. The jugal lobe is universally absent in Pseudomyrmecinae, the dorylomorph, formicomorph and myrmicomorph subfamilies, and Leptanillini; its absence is regarded as the apomorphic condition.
- (2) In extant genera, not confirmed in **Prionomyrmex*.

Comments

The tribe arrangement and synonymy in this subfamily is based upon a study by Philip S. Ward & Sean G. Brady (UC, Davis; currently in press) and is attributable to them.

Tribe-rank taxa of Myrmeciinae: Myrmeciini, Prionomyrmecini.

Tribe MYRMECIINI

Diagnosis

With characters of Myrmeciinae. *Clypeo-labral hinge fully exposed; dorsum of labrum projects anteriorly between the mandibular bases*. Mandibles elongate, sublinear to linear and crossing over at full closure (note 1), with 9 - 18 teeth. *Eyes large and situated anteriorly on head, their anterior margins very close to the posterior clypeal margin* (note 2). Ocelli present. *Second funicular segment elongate and slender*. Waist of two segments (petiole plus postpetiole) (note 3). Abdominal segment IV (first gastral) with sharply defined presclerites (also in male); stridulitrum absent from pretergite of abdominal segment IV. *Sting bulb gland present* (note 4). [Synopsis, p. 132.]

Notes

- (1) Elongate sublinear/linear mandibles have evolved independently in isolated genera within several other subfamilies, in tribes Amblyoponini, Ponerini, Ectatommini, Dacetini, Basicerotini, Myrmoteratini.

- (2) Large eyes whose anterior margins are very close to the clypeal suture also occur convergently in *Myrmoteras* and *Gigantiops* (Formicinae) and *Harpegnathos* (Ponerini).
 (3) For distribution of character see notes under myrmicomorph subfamilies.

Genus-rank taxon of Myrmeciini: *Myrmecia*.

Tribe PRIONOMYRMECINI

[= *Nothomyrmecii*].

Diagnosis

With characters of Myrmeciinae. *Clypeal lateral carina present*. Ocelli absent. Eyes located near midlength of head, their anterior margins remote from the posterior clypeal margin. Mandibles elongate-triangular, not broadly overlapping at full closure (note 1), with 27 - 32 teeth and denticles. Waist of one or two segments (note 2). *Stridulitrum present on sternite of abdominal segment IV* (note 3). Male with slit-shaped propodeal spiracle; male hypopygium biaculeate. [Synopsis, p. 132.]

Notes

(1) Mandibles that oppose but do not overlap at full closure also occur in the myrmicomorphs *Tatuidris* and *Lenomyrmex*, and throughout the dacetine tribe group; each occurrence certainly represents an independent evolution. Mandibles that broadly overlap are plesiomorphic for the Formicidae as a whole.

(2) The waist is one-segmented in *Nothomyrmecia*. Abdominal segment III (first gastral) is much smaller than IV and the latter does not have differentiated presclerites; there is no constriction between abdominal segments III and IV. The waist is two-segmented in **Prionomyrmex*; there is a distinct constriction between abdominal segments III and IV and the latter appears to have presclerites developed.

(3) A stridulitrum also occurs on abdominal sternite IV, but on a sharply defined presternite, in some species of *Rhytidoponera* (Ectatommini); elsewhere in that genus it is present on the pretergite of abdominal sternite IV. Presence/absence of a stridulitrum cannot be ascertained in available **Prionomyrmex* specimens.

Genus-rank taxa of Prionomyrmecini: *Nothomyrmecia*, **Prionomyrmex*.

Incertae sedis in Myrmeciinae: **Ameghinoia*, **Archimyrmex*, **Polanskiella*.

Comments

Judging from the sketches and rather superficial original description **Archimyrmex* appears better placed here than in Myrmicinae. [See postscript, p. 370.]

SUBFAMILY PSEUDOMYRMECINAE

Diagnosis

With characters of myrmeciomorph subfamilies. Mandible short. *Median portion of clypeus does not extend posteriorly between the frontal carinae*. Metacoxal cavities fully closed, without a suture in the annulus. Propodeal spiracle situated high on side and far forward, its orifice circular to elongate. Orifice of metapleural gland located immediately above lower margin of metapleuron. Waist of two segments (petiole plus postpetiole). Abdominal segment IV (first gastral) with sharply defined presclerites (also in male). *Pretergite of abdominal segment IV longer than presternite* (note 1). Stridulitrum present on pretergite of abdominal segment IV. *Male with volsella reduced to a small lobe that is appressed to inner surface of paramere*. Jugal lobe absent from hindwing of alates. Antenna with 11 - 12 segments (12 - 13 in male). *Larva with trophothylax on ventral surface of thorax*. Pupae naked. [Synopsis, p. 134.]

Notes

(1) The relatively short presternite on abdominal segment IV is also found in Myrmicinae.

This feature has been considered as a synapomorphy but it must be strongly suspected that it has arisen independently in the two subfamilies.

Tribe-rank taxon of Pseudomyrmecinae: Pseudomyrmecini.

Tribe PSEUDOMYRMECINI

[= Leptaleinae, = Pseudomyrmidae].

Diagnosis: as subfamily.

Genus-rank taxa of Pseudomyrmecini: *Myrcidris*, *Pseudomyrmex*, *Tetraponera*.

The dorylomorph subfamilies

Subfamilies Aenictinae, Aenictogitoninae, Cerapachyinae, Dorylinae, Ecitoninae, Leptanilloidinae.

Diagnosis

Prementum not visible when mouthparts closed, completely concealed behind labrum and outgrowths of the maxillae that meet medially. Clypeus reduced, usually very narrow from front to back and antennal sockets close to anterior margin of head (note 1). Antennal sockets horizontal, in plane of transverse axis of head and partially to entirely exposed. Eyes frequently very reduced or absent. *Metatibial gland present, located distally on the ventral surface* (note 2). Metacoxal cavities fully closed, without a suture in the broad annulus. *Metapleural gland orifice concealed beneath a ventrally directed cuticular flap or flange.* Petiole sessile to subsessile. Abdominal segment III with complete tergosternal fusion (note 3), segment IV without tergosternal fusion (note 4). *Sternite of helcium large, bulging ventrally and visible in profile* (note 5) (also in male); sternite attached some distance up inner surface of tergite so that tergite overlaps sternite. Abdominal segment IV with strongly developed presclerites. Stridulitrum absent from pretergite of abdominal segment IV. *Spiracles of abdominal segments V - VII shifted posteriorly on each segment, not concealed by the posterior margin of the preceding tergite and visible without distension or dissection.* Pygidium modified: *either large and with dorsum flattened and armed with teeth or spines, or reduced to a narrow U-shaped sclerite* (note 6). Sting apparatus with furcula fused to base of sting or absent (note 7). Male with mandibles usually edentate except for apical tooth (note 8), generally falcate; cerci absent and genitalia completely retractile; hypopygium bidentate to biaculeate. Jugal lobe absent from hindwing of alates. [Synopsis, p. 137.]

Notes

(1) A similar clypeal reduction, also with full exposure of the antennal sockets (see below), occurs in Apomyrminae, most Leptanillinae and some poneromorph groups. Reduction of the clypeus is morphoclinal in the dorylomorph Cerapachyinae, being relatively broad in *Cylindromyrmecini*, narrower in *Acanthostichini* and narrowest in *Cerapachyini*. In all other dorylomorph subfamilies the clypeus is so narrow that the antennal sockets are very close to, or at, the anterior margin of the head (also in male). Antennal sockets are usually fully exposed in dorylomorphs, being separated by no more than a crest or closely approximated pair of low, vertical carinae. Horizontal weak frontal lobes are rarely developed, see notes under Cerapachyinae.

(2) Metatibial gland is secondarily absent in Leptanilloidinae and not visible in some Cerapachyinae and the ecitonine genus *Nomamyrmex*, where the gland has been overlaid with opaque cuticle. Elsewhere in the Formicidae a few species of *Pachycondyla* and *Diacamma* (both Ponerini) and many Dacetini have glands on the metatibia. It is suspected that these are not homologous but rather are the result of independent evolutions as in the former the gland is differently sited and in the latter the glands are located dorsally, on all tibiae and on the femora as well. *Myopopone* (Amblyoponini) has an enormous gland bulla on the metatibia but this is located posterodorsally and is also present on the mesotibia.

(3) Tergosternal fusion of abdominal segment III is universally present in leptanillomorphs, dorylomorphs except for males of Ecitoninae and in all poneromorphs except for

Adetomyrma; it is universally absent in myrmeciomorphs, all myrmicomorphs except for *Cataulacus*, *Cephalotes* and *Myrmicaria*; it is partial (basal only, near helium) in Plagiolepidini (Formicinae) and some genera of Dolichoderinae.

(4) The presclerites but not the postsclerites of abdominal segment IV may be tergosternally fused in Cerapachyinae; elsewhere in dorylomorphs fusion is entirely absent.

(5) The helcium sternite also bulges ventrally in the poneromorph genus *Discothyrea* and the agroecomymecine genus *Tatuidris* (which are probably parallelisms), and in the subfamily Myrmicinae. In the dorylomorphs and the first two of these taxa the helcium sternite is attached some distance up the inner wall of the tergite (anterior view) so that the tergite overlaps the sternite, whereas in Myrmicinae the helcium sternite is attached directly across the tergal apices.

(6) A single species of the Ponerini genus *Pachycondyla* (*P. crassinoda*) has the pygidium armed with a pair of teeth; it shows no other dorylomorph attributes so the character is certainly an autapomorphy of this one species.

(7) A similar condition of the furcula is also seen in formicomorphs, some leptanillomorphs and in Myrmicinae with reduced stings.

(8) Some species of *Cerapachys* males have up to 12 denticles on each mandible and a few *Sphinctomyrmex* have 2 - 3 teeth; the edentate condition is otherwise universal.

Comments

(i) This group of subfamilies is emphatically monophyletic but the position of the group with respect to other formicids remains unclear. Although obviously related to the poneromorphs and leptanillomorphs the nature of the relationship has not yet been untangled. What does seem clear is that the dorylomorph group should not be regarded as the sister-group of all the poneromorphs together, but rather it has arisen from somewhere within that diverse assemblage.

(ii) For the diagnostic reasons given below the various higher groups of dorylomorphs are regarded as subfamilies, rather than as subgroups of a single subfamily.

SUBFAMILY CERAPACHYINAE

Diagnosis

With characters of dorylomorph subfamilies. Alitrunk fusiform and box-like; promesonotal suture usually entirely absent (note 1). *Propodeal spiracle situated low down on the side of the sclerite and shifted posteriorly so that it is at or behind the midlength of the sclerite.* Propodeal lobes present. Waist of one or two segments (note 2). Petiole without tergosternal fusion. Presclerites of abdominal segment IV with tergosternal fusion, postsclerites unfused. *Pygidium large, flattened dorsally; margins of flattened area armed either laterally, posteriorly, or both with a series of short teeth or spines* (note 3). Sting large, functional. Eyes varying from large and conspicuous to absent. Antenna with 9 - 12 segments (12 - 13 in males). Male abdominal segment III with tergosternal fusion, abdominal tergite IV with presclerite; male tegulae enlarged. [Synopsis, p. 137.]

Notes

(1) A promesonotal suture is present in the extant South African *C. wroughtoni* and the Baltic Amber fossil **C. annosus* but is fully fused, the pronotum and mesonotum incapable of movement relative to each other.

(2) Acanthostichines and cylindromyrmecines all have a single-segmented waist. In cerapachyines the situation is more complicated, with some taxa having one and some two waist segments; see notes under Cerapachyini.

(3) Pygidium never with lateral margin armed with a single pair of teeth or short spines as is characteristic of Dorylinae.

Comments

In Cerapachyinae pretarsal claws are simple, without a preapical tooth, in all castes and sexes of *Acanthostichus*, *Cylindromyrmex* and *Sphinctomyrmex*. The claws are simple in all

castes and sexes of most *Cerapachys*, but toothed claws occur throughout the *C. crawleyi* group and the *C. antennatus* group. Workers and queens of all *Simopone* examined have preapically toothed claws (males of this genus are unknown).

Tribe-rank taxa of Cerapachyinae: Acanthostichini, Cerapachyini, Cylindromyrmecini.

Tribe ACANTHOSTICHINI

Diagnosis

With characters of Cerapachyinae. Gena outside antennal fossa not carinate. Side of head with a groove that extends posteriorly from the mandibular articulation (not masked by costate sculpture) (note 1). Narrow horizontal frontal lobes present, frontal carinae and antennal scrobes absent; antennal sockets partially to entirely exposed. Mesotibia and metatibia each with 1 spur (also in male). Waist of a single segment. *Helcium broad, in profile projecting from well above midheight on anterior face of abdominal segment III (first gastral)* (note 2) (also in male). Palp formula 2,3. Antenna with 12 segments (12 in male). Eye a minute unpigmented disc to vestigial. [Synopsis, p. 137.]

Notes

(1) A similar groove is present in *Cylindromyrmex*, where it is usually masked by strong costate sculpture, and in some *Cerapachys* where it runs from the mandibular insertion to the eye, then extends along the side below the eye.

(2) A helcium in this position also occurs only in the Amblyoponini. Given the otherwise enormously different morphologies this is certainly independent development.

Genus-rank taxon of Acanthostichini: *Acanthostichus*.

Tribe CYLINDROMYRMECINI

Diagnosis

With characters of Cerapachyinae. Gena outside antennal fossa not carinate. Horizontal frontal lobes and laterally expanded frontal carinae present, *well developed antennal scrobes present*; antennal sockets partially to entirely concealed. Mesotibia and metatibia with 2 spurs (also in male). Waist of a single segment. Helcium projects from about the midheight of anterior face of abdominal segment III (also in male). Palp formula 2,3 or 2,2. Antenna with 12 segments (13 in male). Eyes present, of moderate size. *Sculpture longitudinally costate, strong and dense* (note 1). [Synopsis, p. 138.]

Notes

(1) Similar sculpture is notable only in species of *Gnamptogenys* (Ectatommini) and extremely rarely elsewhere (e.g. a few *Polyrhachis* (Camponotini)).

Genus-rank taxon of Cylindromyrmecini: *Cylindromyrmex*.

Tribe CERAPACHYINI

[= Eusphinctinae, = Lioponerini].

Diagnosis

With characters of Cerapachyinae. *Gena outside antennal fossa usually carinate* (note 1). Side of head usually without a groove that extends posteriorly from the mandibular articulation (note 2). Narrow horizontal frontal lobes rare, usually vertical or absent; frontal carinae and antennal scrobes partial to absent; antennal sockets partially to entirely exposed. Mesotibia with 0, 1 or 2 spurs, metatibia with 1 or 2 spurs (also in male). Waist of one or two segments (note 3) (also in male). Helcium projects from about the midheight of anterior face of abdominal segment III (also in male). Antenna with 9 - 12 segments (12 - 13 in male). Eyes varying from large to absent. [Synopsis, p. 139.]

Notes

(1) Two species are known in which the genal carinae have been secondarily lost.

(2) See under *Acanthostichini* (note 1).

(3) Among *Cerapachys* species abdominal segment III shows a morphoclinal reduction sequence from a large, broad first gastral segment to a postpetiole that is scarcely larger than the petiole. Also in this sequence abdominal segment IV changes from a condition in which the presclerites are relatively weakly indicated by a constriction to one in which they are very strongly demarcated. The genus thus contains species with a one-segmented waist, species with a distinctly two-segmented waist, and a series of intermediate forms. In *Simopone* and *Sphinctomyrmex* abdominal segment III remains large but is always strongly separated from segment IV, the latter having a marked constriction between its pre- and postsclerites.

Comments

(i) Palp formula is very variable in Cerapachyini, from PF 6,4 in most *Simopone* down to PF 2,2 in some *Cerapachys*; see Appendix 2 for details.

(ii) The genus-group name *Yunodorylus* is newly synonymised with *Cerapachys*; see Appendix 1.4.

Genus-rank taxa of Cerapachyini: *Cerapachys*, *Simopone*, *Sphinctomyrmex*.

SUBFAMILY ECITONINAE

Diagnosis

With characters of dorylomorph subfamilies. Promesonotal suture absent. Propodeal spiracle situated high on side and far forward. Propodeal lobes present. Waist of one or two segments. Petiole without tergosternal fusion. Abdominal segments V - VII without strongly differentiated presclerites. *Orifices of abdominal spiracles IV - VII directed posteriorly. Pygidium small or very small, usually merely a narrow U-shaped sclerite.* Sting large, functional. Eyes reduced to a small transparent blister or a single ommatidium, or vestigial to absent. Queen dichthadiiform. Male with tergosternal fusion of presclerites of abdominal segment III (postsclerites unfused); with slit-shaped propodeal spiracle. *Male with sharply defined presclerites on abdominal segments IV - VII; abdominal sternite VII hypertrophied; abdominal sternite VIII internalised and bilobate apically; male biaculeate hypopygium mostly or entirely exposed; basal ring of genital capsule hypertrophied.* Alates with cross-vein 2rs-m present in forewing (note 1). Palp formula 2,3 or 2,2. Antenna with 12 segments (13 in males). Legionary behaviour present. [Synopsis, p. 142.]

Notes

(1) Presence of 2rs-m is plesiomorphic. Among the dorylomorphs an apomorphic absence of the vein is universal in Aenictinae and Dorylinae. As in ecitonines, 2rs-m is present in Aenictogitoninae though the venation here is more specialised. In cerapachyines the vein is retained in some species of *Acanthostichus* and *Cylindromyrmex*, but appears relatively rare in *Cerapachys* (detected in *C. crawleyi* only).

Comments

In Ecitoninae pretarsal claws have a preapical tooth present in workers and known queens of *Cheliomyrmex*, *Eciton*, *Labidus* and *Nomamyrmex*. Claws of these castes in all *Neivamyrmex* are simple. Males usually have preapically toothed pretarsal claws but these are absent in some *Eciton* and *Neivamyrmex*, present in others. It is possible that all taxa of Ecitonini may represent a single genus.

Tribe-rank taxa of Ecitoninae: *Cheliomyrmecini*, *Ecitonini*.

Tribe **CHELIOMYRMECINI***Diagnosis*

With characters of Ecitoninae. Propodeal spiracle circular. Waist of one segment (petiole) (also in queen and male) (note 1). Abdominal spiracles V - VII circular. [Synopsis, p. 143.]

Notes

(1) Abdominal segment III much smaller than IV but the two are very broadly articulated.

Comments

- (i) The forewing in *Cheliomyrmex* sometimes retains a partial or complete 1r-rs cross-vein.
- (ii) Diagnosis of this tribe is entirely plesiomorphic with respect to Ecitonini.

Genus-rank taxon of Cheliomyrmecini: *Cheliomyrmex*.

Tribe **ECITONINI***Diagnosis*

With characters of Ecitoninae. Propodeal spiracle elliptical to slit-shaped. Waist of two segments (petiole plus postpetiole) (of only one segment (petiole) in queen and male) (note 1). Abdominal spiracles V - VII oval to slit-shaped. [Synopsis, p. 143.]

Notes

(1) A similar dimorphism is developed in Aenictinae and Leptanillini.

Genus-rank taxa of Ecitonini: *Eciton*, *Labidus*, *Neivamyrmex*, *Nomamyrmex*.

SUBFAMILY LEPTANILLOIDINAE*Diagnosis*

With characters of dorylomorph subfamilies. *Lateral blunt teeth present on genae, overhanging the mandibles.* Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other. Propodeal spiracle situated low on side of sclerite, at or behind its midlength. Propodeal lobes absent. Metatibial gland absent. Waist of one or two segments (note 1). *Petiole with complete tergosternal fusion* (note 2). *Pygidium extremely reduced, a slender U-shaped sclerite that is overhung by the tergite of abdominal segment VI.* Sting present, functional. Eyes absent. Palp formula 2,2. Antenna with 12 segments. Pretarsal claws without a preapical tooth. [Synopsis, p. 145.]

Notes

(1) In *Leptanilloides* there is a morphocline reduction of abdominal segment III that produces a definite postpetiole in one species; in *Asphinctanilloides* all species are distinctly postpetiolate.

(2) Leptanilloidinae is the only dorylomorph subfamily to exhibit this fusion, which is certainly independently acquired; for distribution of character elsewhere in Formicidae see notes under formicomorph subfamilies.

Comments

This subfamily is known only from workers. Brandão, Diniz, Agosti & Delabie (1999) also list three apomorphies based on fine detail of sting morphology.

Tribe-rank taxon of Leptanilloidinae: Leptanilloidini.

Tribe **LEPTANILLOIDINI**

Diagnosis: as subfamily.

Genus-rank taxa of Leptanilloidini: *Asphinctanilloides*, *Leptanilloides*.

SUBFAMILY AENICTINAE

Diagnosis

With characters of dorylomorph subfamilies. Promesonotal suture absent. Propodeal spiracle situated high on side and far forward. Propodeal lobes present. Waist of two segments (petiole plus postpetiole) (of only one segment (petiole) in queen and male) (note 1). Petiole without tergosternal fusion. *Spiracle of abdominal segment III (postpetiole) at or behind midlength of tergite. Abdominal segment IV (first gastral) constricted behind the presclerites, forming a neck.* Abdominal segments V - VII without strongly differentiated presclerites. *Pygidium very small, reduced to a narrow U-shaped sclerite.* Dufour's gland lining crenellate. *Postpygidial gland large.* Sting large, functional. Eyes absent. Queen dichthadiiform. Male abdominal segment III with complete tergosternal fusion; *male without presclerites on abdominal segment IV. Male with abdominal segment VI enlarged; male tergite VII mostly overlapped and concealed by tergite VI so that only a small portion of VII is visible, internalised portion of tergite VII is desclerotised;* male pygidium bulges outward. Pretarsal claws without a preapical tooth. Palp formula 2,2 or 2,1. Antenna with 8 - 10 segments (13 in males). Pupae naked. Legionary behaviour present. [Synopsis, p. 146.]

Notes

(1) A similar dimorphism in number of waist segments, where the worker has two, the queen (and male) one, also occurs in Ecitonini and Leptanillini.

Comments

The comments under Dorylinae concerning a dual system of taxonomy apply to an even greater extent here. Of the 109 nominal species of *Aenictus* not a single species is known from worker, queen and male; only nine are known from worker plus queen and a mere three from worker plus male. On the other hand there are 43 species described from workers only and 54 from males only. Acquisition of associated castes and sexes, particularly associated workers and males, is essential if ever a unified taxonomy of this group is attempted; the present state of affairs is most unsatisfactory.

Tribe-rank taxon of Aenictinae: Aenictini.

Tribe AENICTINI

Diagnosis: as subfamily.

Genus-rank taxon of Aenictini: *Aenictus*.

SUBFAMILY DORYLINAE

Diagnosis

With characters of dorylomorph subfamilies. *Distal (free) margin of labrum not concave/cleft medially* (also in male). Gena outside antennal fossa not carinate. Promesonotal suture strongly present but fused, the pronotum and mesonotum incapable of movement relative to each other. *Propodeal spiracle* situated high on side and far forward, *subtended by a longitudinal impression* and an endophragmal pit. Propodeal lobes absent. Waist of one segment (petiole), without tergosternal fusion (also in queen and male). *Abdominal segments V - VII with strongly differentiated presclerites* (absent in queen and male). Abdominal tergites IV and V subequal in size. *Pygidium large, flattened to concave dorsally, lateral margin armed with a pair of teeth or short spines.* Sting reduced, not functional as a weapon. Dufour's gland lining crenellate. Eyes absent. Queen dichthadiiform, *with bursa copulatrix permanently open* (note 1); *queen abdominal sternite VII (hypopygium) hypertrophied and bilobate posteriorly.* Male submarginal cell of

forewing extremely elongate; abdominal segment III with complete tergosternal fusion, abdominal tergites IV - VIII without presclerites; abdominal spiracles II - VIII slit-shaped. Pretarsal claws without a preapical tooth. Palp formula 2,2 or 2,1 or 1,2. Antenna with 7 - 12 segments (13 in males). Pupae naked. Legionary behaviour present. [Synopsis, p. 147.]

Notes

(1) Bursa copulatrix is also permanently open in dichthadiiform queens of *Leptanilla* (Leptanillini).

Comments

The characteristic morphologies of the workers and queens and the large, distinctive "sausage fly" males make dorylines an easily recognised group. Species-rank taxonomy, however, remains almost impenetrable. The main source of taxonomic confusion is the presence of two separate systems, one based on workers and the other on males. Even more confusing is the fact that some species are based solely on the dichthadiiform queens, though how these can be found without encountering workers is a mystery. Workers and males are common in collections, queens are quite rare, but finding two or all three in association is infrequent. Of the 61 nominal species only eight are known from workers, queens and males; four are known from workers plus males; three from workers plus queens. Of the remainder six are based solely on queens, 16 solely on workers and 24 solely on males. It is certain that many of these isolated "species" will be conspecific with other "species" described from different sexes or castes.

Tribe-rank taxon of Dorylinae: Dorylini.

Tribe DORYLINI

Diagnosis: as subfamily.

Genus-rank taxon of Dorylini: *Dorylus*.

SUBFAMILY AENICTOGITONINAE

Diagnosis

Male only. With characters of dorylomorph subfamilies. *Dorsum of head with a broad deep pit-like impression behind the ocelli. Alitrunk elongate and slender, bilaterally compressed.* Propodeal spiracle round. *Dorsum of petiole depressed into a deep subtriangular excavation on the posterior half.* Abdominal segment III with complete tergosternal fusion. Spiracles on abdominal segments III - VIII small, circular. Presclerites absent from abdominal segments IV - VII. Abdominal tergite VI not disproportionately large; tergite VII exposed, not mostly concealed by tergite VI, not desclerotised; tergite VIII enlarged; sternite VII not hypertrophied; sternite VIII reduced and mostly retracted, simple apically. Pretarsal claws without a preapical tooth. Palp formula 1,1. *Forewing venation specialised* (note 1). Antenna with 13 segments, *funiculus incrassate apically*. [Synopsis, p. 150.]

Notes

(1) The second abscissa of Rs is widely detached from Rs+M and its proximal end appears free-floating in the wing membrane; this results in the first and second submarginal cells being confluent proximally. The same specialisation has been recorded in Myrmicinae (almost universally in *Myrmica* and allies), and is of sporadic and rare occurrence in various poneromorphs. Cross-vein 2rs-m is retained in *Aenictogiton*, as in the ecitonines.

Comments

(i) This subfamily is known from males only and presents what is perhaps the greatest remaining enigma in ant taxonomy: what and where are the female castes of *Aenictogiton*?

(ii) The abdominal characters listed above are chosen to contrast with males of other dorylomorph subfamilies, particularly Aenictinae and Dorylinae to which *Aenictogiton*

appears related (a putative synapomorphy: long anterior apodemes on abdominal sternite VIII, is common to all three).

Tribe-rank taxon of Aenictogitoninae: Aenictogitonini.

Tribe AENICTOGITONINI

Diagnosis: as subfamily.

Genus-rank taxon of Aenictogitonini: *Aenictogiton*.

The leptanillomorph subfamilies

Subfamilies Apomyrminae, Leptanillinae.

Diagnosis

Clypeus narrow from front to back, antennal sockets close to or at anterior margin of head. Antennal sockets horizontal, fully exposed (note 1). Eyes absent (note 2). *Promesonotal suture enhanced, very mobile and extremely flexible* (note 3). Propodeal lobes absent. Propodeal spiracle very low on side of sclerite. Metacoxal cavities small, fully closed, without a suture in the annulus. Helcium sternite small and retracted, overlapped by the tergite. *Spiracle of abdominal segment III large and far forward*. Spiracles of abdominal segments V - VII concealed by posterior margins of preceding tergites. Abdominal segment III with tergosternal fusion (note 4), segment IV without tergosternal fusion. Stridulitrum absent from abdominal tergite IV. *Pygidium enlarged to hypertrophied*, simple; sting present. Pretarsal claws without a preapical tooth on the inner margin. Antenna with 12 segments (13 in male). Alates with venation very reduced; *pterostigma absent from forewing* (note 5), jugal lobe absent from hindwing. [Synopsis, p. 150.]

Notes

- (1) For distribution of character see notes under formicomorph subfamilies.
- (2) Eyes are entirely absent in leptanillomorph workers, present in all myrmeciomorphs; in other subfamily groups they are variably developed but predominantly absent or present. In formicomorphs usually present (absent in *Anillidris* (Dolichoderinae) and some species of *Acropyga* and *Pseudolasius* (Formicinae)). In dorylomorphs absent in all Aenictinae, Dorylinae, Leptanilloidinae; absent to vestigially present in Ecitoninae; absent to large in Cerapachyinae. In myrmicomorphs usually present but absent in all species of *Afroxyidris*, *Anillomyrma*, *Bondroitia*, *Carebara* and *Liomyrmex*, absent from some hypogaecic species of *Oligomyrmex*, *Solenopsis* and a few Basicerotini and Dacetini (list is not exhaustive). In poneromorphs eyes are usually present but are absent in *Probolomyrmex*, *Centromyrmex*, *Concoctio*, *Cryptopone*, some *Typhlomyrmex* and some *Hypoponera* species.
- (3) The mesonotum has an extensive dorsal articulatory surface, usually followed by a groove or impression, that allows the pronotum to flex upward relative to the remainder of the alitrunk. The anterior mesothorax appears constricted or strangulated before its articulation into the prothorax. Enhanced mobility of promesonotal suture is least well developed in Anomalomyrmini, much more strongly expressed in Apomyrminae and Leptanillini.
- (4) For distribution of character see notes under dorylomorph subfamilies.
- (5) Loss of the pterostigma from the forewing is uncommon in ants. Apart from the leptanillomorphs it is absent only in some Attini (Myrmicinae) and *Leptomyrmex* (Dolichoderinae).

Comments

Understanding the leptanillomorphs is made very difficult because for most of its genera various castes and/or sexes remain to be discovered, or may have been discovered separately but cannot be associated. In three genera out of six the males are unknown, whereas by strange contrast two other genera are based solely on that sex. The diagnosis of leptanillomorph males is too vague and far from properly understood; there are a number of other strange male-based genera still in flux (see comments under Leptanillini) which

may or may not belong here. *Leptanilla* itself is the only genus where all female castes and both sexes are known, but even here the number of males associated with definitely conspecific queens and workers is tiny.

SUBFAMILY APOMYRMINAE

Diagnosis

With characters of leptanillomorph subfamilies. *Labrum* with numerous peg-like dentiform setae arranged in transverse rows. Antennal funiculus clavate. Metapleural gland orifice not overhung by a cuticular rim or flange. Waist of one segment (petiole), pedunculate anteriorly, without tergosternal fusion. Free sternite of petiole reduced to a minute posteromedian sclerite (note 1). *A transverse sulcus present on abdominal sternite III posterior to the helcium* (note 2). Abdominal segment IV without differentiated presclerites. Mesotibia and metatibia each with 2 spurs. Palp formula 2,2. [Synopsis, p. 150.]

Notes

(1) A single amblyoponine species, *Amblyopone mutica*, has the petiolar sternite similarly modified.

(2) A sulcus or mobile suture across abdominal sternite III is also seen in Formicini, Camponotini and relatives; this has obviously been evolved independently of the apomyrmnes.

Comments

Queens of Apomyrminae are alate; the forewing lacks a pterostigma as in male leptanillines. Eyes are present in queens and are located far posteriorly on the head. The male of *Apomyrma* is known only from its pupal stage.

Tribe-rank taxon of Apomyrminae: Apomyrmini.

Tribe APOMYRMINI

Diagnosis: as subfamily.

Genus-rank taxon of Apomyrmini: *Apomyrma*.

SUBFAMILY LEPTANILLINAE

Diagnosis

With characters of leptanillomorph subfamilies. Metapleural gland orifice overhung from above by a cuticular rim or flange. Waist of two segments (petiole plus postpetiole) in worker, of 1 or 2 in queen (note 1). *Petiole sessile and with complete tergosternal fusion*. Abdominal segment IV with sharply differentiated presclerites. [Synopsis, p. 151.]

Notes

(1) In Leptanillini two waist segments are present in the worker but there is just one in the queen and the male. In Anomalomyrmini the situation is not fully resolved as males of this tribe remain unknown; *Protanilla* is known only from workers and *Anomalomyrma* only from the queen. However, both these female castes have two waist segments.

Tribe-rank taxa of Leptanillinae: Anomalomyrmini, Leptanillini.

Tribe ANOMALOMYRMINI

Diagnosis

With characters of Leptanillinae. *Mandible with bizarre armament*. Antennal sockets not adjacent to anterior margin of head. Labrum usually with a pair of minute peg-like

dentiform setae. *Median portion of clypeus a trapezoidal plate, sharply marginate laterally.* Metanotal groove strongly developed. *Metapleural gland bulla longitudinal, extending anteriorly below propodeal spiracle.* Mesotibia without spurs. Waist of two segments (petiole plus postpetiole) in both worker and queen (note 1), the latter alate. Palp formula 4,1. [Synopsis, p. 151.]

Notes

(1) See under Leptanillinae (note 1).

Genus-rank taxa of Anomalomyrmini: *Anomalomyrma*, *Protanilla*.

Tribe LEPTANILLINI

Diagnosis

With characters of Leptanillinae. *Mandible narrowly blade-like, with only 2 - 3 preapical teeth.* Antennal sockets very close to, or even abutting, anterior margin of head (also in male). Labrum without peg-like dentiform setae. Number of waist segments polymorphic: two in worker, one in queen and male (note 1). Queen dichthadiiform, with exposed bursa copulatrix (note 2). Mesotibia with 1 or 2 spurs (note 3). Male with non-opposable lobate mandibles; genitalia very large to enormously hypertrophied, not retractile; cerci absent; wings without pterostigma. Palp formula 2,1 or 1,1. *Larva with specialised carrying process on prothorax and abdominal segment III with specialised organ for feeding haemolymph to the queen.* Pupal cocoons absent. [Synopsis, p. 152.]

Notes

(1) A similar dimorphism in number of worker/queen waist segments is also developed in Aenictinae and Ecitonini.

(2) Also present in the dichthadiiform queen of *Dorylus*.

(3) Mesotibia with one spur throughout *Leptanilla*, with two spurs in the male-based genera *Phaulomyrma* and *Yavnella*.

Comments

A couple of male-based genera that were earlier assigned to Leptanillinae, *Noonilla* and *Scyphodon*, have recently been excluded from the subfamily; see the synopsis for references. In BMNH collection there is a single Afrotropical male that appears related to *Noonilla* and apparently is leptanilline: it may be necessary to reassess the position of the genus.

Genus-rank taxa of Leptanillini: *Leptanilla*, *Phaulomyrma*, *Yavnella*.

The poneromorph subfamilies

Subfamilies Amblyoponinae, Ectatomminae, Heteroponerinae, Paraponerinae, Ponerinae, Proceratiinae.

Diagnosis

Orifice of metapleural gland never concealed by a dorsally located cuticular flange or flap. Propodeal lobes present. Waist of one segment (petiole) that is separated posteriorly from abdominal segment III (first gastral) at least by a constriction (note 1). Helcium sternite retracted, overlapped by the tergite (note 2) (also in male). Abdominal segments III and IV with tergosternal fusion (also in male) (note 3). Abdominal segment IV with presclerites and usually a girdling constriction present between the presclerites and postsclerites (note 4) (also in male). Spiracles of abdominal segments V - VII concealed by posterior margins of preceding tergites. Sting present, usually strongly developed. [Synopsis, p. 153.]

Notes

(1) In almost all poneromorphs abdominal segment III varies from slightly larger than IV to

slightly smaller than IV. However, in Paraponerini and a few species of Proceratiini segment III is markedly reduced with respect to IV and may be termed sub-postpetiolate. See also notes under myrmicomorphs.

(2) Helcium sternite is convex and not overlapped by the tergite only in *Discothyrea* (Proceratiini). In this respect *Discothyrea* resembles the dorylomorphs but otherwise their morphologies are very different; the similarity of the helcium is presumed to be by convergence.

(3) For distribution of tergo-sternal fusion of abdominal segment III throughout the family see under dorylomorphs (note 3). Of all the poneromorphs only the monotypic Malagasy amblyoponine genus *Adetomyrma* lacks tergo-sternal fusion on abdominal segments III and IV. Whether this is plesiomorphic or a reversal from a previously fused state remains under debate (see discussion in Ward, 1994). It is by no means definite that tergo-sternal fusion of abdominal segment IV represents a poneromorph synapomorphy. Outside the poneromorphs this fusion is restricted to *Tatuidris* (Agroecomyrmecini) and *Ankylomyrma* (Ankylomyrmini).

(4) The girdling constriction is usually apparent but in the amblyoponine *Adetomyrma* sharply differentiated presclerites are absent on abdominal segment IV. In Ponerini the character is variously reduced or lost in such genera as *Asphinctopone* and *Phrynoponera*, and in some individual species or species groups within larger genera such as *Leptogenys*, *Anochetus* *Odontomachus*, *Pachycondyla*, and also in *Simopelta*.

Comments

(i) The traditional large subfamily Ponerinae is abandoned here and its former components are regrouped as six independent subfamilies. This radical reassessment is because it has become apparent in recent years that the old and long-established concept of a single "subfamily Ponerinae" is no longer defensible. Regarding all the poneromorphs as a single subfamily has probably held back the generation of an accurate phylogeny in this part of Formicidae because "Ponerinae" as a terminal taxon could not be defined in a precise manner.

(ii) Despite the lack of an unequivocal synapomorphy the six subfamilies together are treated here under the unofficial group-name poneromorph, to distinguish them from other obvious and often better delimited assemblages of subfamilies, such as the dorylomorphs and formicomorphs. Subfamily Ponerinae is now restricted to tribes Ponerini + Platylatreini + Thaumatomyrmecini.

SUBFAMILY AMBLYOPONINAE stat. rev.

Diagnosis

With characters of poneromorph subfamilies. *Dentiform clypeal setae present* (note 1). Eyes when present (sometimes absent) situated behind midlength of sides of head. Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other. Metacoxal cavities closed, either with a suture present in the annulus or fully fused. *Orifice of metapleural gland directed predominantly dorsally and posteriorly* (note 2), on a curved surface mesad of a posterolateral swelling or plate. Petiole essentially sessile, with a steep broad anterior face but *without a distinctly descending posterior face; with tergo-sternal fusion anteriorly but not posteriorly*. Petiole markedly broadly attached to abdominal segment III (first gastral). Posterior margin of abdominal sternite II broad and simple in posterior view; medially not thickened, not complexly folded nor inflected (note 3). *Helcium projects from very high on anterior face of abdominal segment III* (note 4) (also in male); *abdominal segment III above the helcium has no free anterior face* (also in male). *Sternite of helcium very wide*. Abdominal segment IV usually with differentiated presclerites and usually with complete tergo-sternal fusion (note 5); stridulitrum absent from pretergite IV. Pretarsal claws without a preapical tooth. Venom gland without a convoluted portion. Jugal lobe absent from hindwing of alates. Antenna with 7 - 12 segments (13 in male) (note 6). [Synopsis, p. 153.]

Notes

- (1) Dentiform clypeal setae are secondarily lost in only a single amblyoponine species, *Amblyopone mutica*. This species is also odd as it displays a petiolar morphology very similar to that of *Apomyrma* (Apomyrmini); assumed as convergent here.
- (2) The orifice of the metapleural gland opens more laterally in the monotypic genus *Myopopone* than is usual in the subfamily.
- (3) In all other members of the poneromorph group the posterior margin of abdominal sternite II (petiole) is narrow and specialised in posterior view; the sternite is contracted and thickened medially, the thickened portion may be complexly folded, inflected laterally, or both (*Discothyrea* (Proceratiini) is an exception but this genus does not conform to the simple structure seen in Amblyoponini).
- (4) Helcium in this position also occurs in the cerapachyine genus *Acanthostichus* (Acanthostichini). Morphologically the two groups do not otherwise appear closely related.
- (5) Presclerites are not differentiated on abdominal segment IV in *Adetomyrma* and the segment lacks tergosternal fusion only in this monotypic genus.
- (6) Antennomere count is 13 in all known males except for the dubiously amblyoponine *Paraprionopelta* where it is 10.

Comments

Fusion of the torulus to the frontal lobe, or lack of it, is fairly consistent in other poneromorph subfamilies but exhibits an obviously independent morphocline in Amblyoponini. In *Mystrium* the two are not fused, in *Amblyopone* the degree of fusion is variable, and in *Myopopone* fusion is complete.

Tribe-rank taxon of Amblyoponinae: Amblyoponini.

Tribe AMBLYOPONINI

[= Ericapeltini, = Examblyoponini, = Onychomyrmicini, = Reneini].

Diagnosis: as subfamily.

Genus-rank taxa of Amblyoponini: *Adetomyrma*, *Amblyopone*, *Bannapone*, **Casaleia*, *Concoctio*, *Myopopone*, *Mystrium*, *Onychomyrmex*, *Prionopelta*.

Incertae sedis: *Paraprionopelta*.

SUBFAMILY PONERINAE*Diagnosis*

With characters of poneromorph subfamilies. *Torulus completely fused to frontal lobe* (note 1). *Outer borders of frontal lobes form simple short semicircles or blunt triangles and in full-face view have a distinctly pinched-in appearance posteriorly* (note 2). Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other. Metapleural gland orifice simple, opening laterally to posteriorly (note 3). Metacoxal cavities fully open to fully closed and fused (note 4). Mesotibia and metatibia each with 0 - 2 spurs (note 5). Petiole without tergosternal fusion, frequently with laterotergites. Stridulitrum very variable (note 6). Antenna with 12 segments (13 in male). [Synopsis, p. 156.]

Notes

- (1) Also occurs in the amblyoponine genus *Myopopone* (see comments under Amblyoponinae), a presumed convergence as ponerines otherwise entirely lack amblyoponine apomorphies.
- (2) The characteristic pinched-in appearance is secondarily reduced in *Centromyrmex* and a few *Platythyrea* species such as *P. cooperi*.
- (3) Metapleural gland orifice is variously shaped but is usually a simple hole, without cuticular lobes or outgrowths and without dorsally located flanges or carinae that conceal the orifice; almost certainly this is the plesiomorphic condition of the gland orifice. In some genera (*Plectroctena* group, *Harpegnathos*, *Diacamma*, *Platythyrea*) the orifice is directed

laterally; in others (*Leptogenys*, *Pachycondyla*) it tends to open posteriorly.

(4) Open metacoxal cavities have been recorded only in some *Platythyrea* species. A fully fused annulus around the metacoxal cavities has been detected only in *Harpegnathos* and a few small *Ponera* and *Hypoconera*; all others have the annulus with a suture.

(5) Details in Appendix 2 (p. 274).

(6) The presence or absence of a stridulitrum on the pretergite of abdominal segment IV is very variable among Ponerinae genera. In most it is either consistently absent or present, but in some larger genera, such as *Pachycondyla*, *Anochetus* and *Odontomachus*, it is absent in some species and present in others.

Comments

The ventral surface of the metabasitarsus, distal of its junction with the tibia, has a tuft or palisade of small hairs that are either denser and more erect, or are of different structure (peg-like, truncated) to other pilosity that may be present (also in males). The extent of this set of hairs along the ventral surface is variable but in most taxa is associated with a slight concavity of the ventral outline and appears always to be associated with the presence of a large pectinate metatibial spur. The feature is not duplicated on the mesobasitarsus so the appearance of the two is not the same. Among Ponerinae the structure appears lost, presumably secondarily, in *Diacamma*, *Emeryopone*, *Harpegnathos*, *Loboponera*, *Plectroctena* and the small *Ponera* and *Hypoconera*. It appears to be reduced or absent in other poneromorph groups except for *Paraponera*, where it is conspicuous, and some *Amblyopone* (*A. reclinata* group and some Australian species). Elsewhere in the family the structure has been detected in *Dolichoderus* (*Dolichoderini*), *Nothomyrmecia* (*Prionomyrmecini*) and *Pseudomyrmecinae*, but seems absent in myrmicomorphs and Formicinae. However, a detailed family-wide survey remains to be made.

Tribe-rank taxa of Ponerinae: Ponerini, Platythyreini, Thaumatomyrmecini.

Tribe PONERINI

[= *Archiponerini, = Centromyrmecini, = Dorylozelini, = Drepanognathini, = Euponerinae, = Harpegnathii, = Leptogenysii, = Odontomachidae, = Pachycondylinae, = Plectroctenini, = Pseudoneoponerini *syn. n.*].

Diagnosis

With characters of Ponerinae. *Median portion of clypeus narrowed posteriorly, narrowly inserted between frontal lobes as a slender triangle or linear strip. Antennal sockets closely approximated. Inner borders of frontal lobes very closely approximated mediodorsally on head or confluent for most or all of their length (often separated merely by a sulcus).* Metacoxal cavities closed, with a suture in the annulus or fully fused. Helcium projects from very low down on the anterior face of abdominal segment III, the latter with a high vertical anterior face above the helcium (note 1) (also in male). Male with mandibles very reduced and not opposable, lobate or edentate except for an apical tooth (see comments). Palp formula frequently showing marked sexual dimorphism (note 2). [Synopsis, p. 158.]

Notes

(1) Endemic Australian *Platythyrea* species of the *P. dentinodis* group have the helcium quite low on the anterior face of abdominal segment III, but that is a unique development not seen elsewhere within the genus. Some *Cryptopone* species, *Centromyrmex* species and an undescribed Australian genus have the helcium closer to the midheight of abdominal segment III than is usual in Ponerini. These are most probably independent reversals as they occur in some but not all species of *Cryptopone*. *Harpegnathos* has the anterior face of abdominal segment III relatively short, probably secondarily shortened as the helcium remains low.

(2) In many Ponerini the males have a higher palp formula than conspecific female castes (see Appendix 2 for details). The same state of affairs is seen in the Ectatommini but elsewhere in the family it is extremely rare.

Comments

The diagnostic characters above that relate to helcium, abdominal segment III and male mandible structure are identical to Thaumatomyrmecini and are probably synapomorphies of the two.

Genus-rank taxa of Ponerini: *Anochetus*, *Asphinctopone*, *Belonopelta*, *Centromyrmex*, *Cryptopone*, *Diacamma*, *Dinoponera*, *Dolioponera*, *Emeryopone*, *Harpegnathos*, *Hypoponera*, *Leptogenys*, *Loboponera*, *Myopias*, *Odontomachus*, *Odontoponera*, *Pachycondyla*, *Phrynoponera*, *Plectroctena*, *Ponera*, *Psalidomyrmex*, *Simopelta*, *Streblognathus*.

Incertae sedis: **Archiponera*, **Poneropsis*, **Protopone*.

Tribe **THAUMATOMYRMECINI***Diagnosis*

With characters of Ponerinae. *Mandible with a small number (usually 3) of extremely attenuated slender teeth, the apical especially exaggerated. Median portion of clypeus extremely broad posteriorly.* Apices of frontal lobes project anteriorly at least to level of anterior clypeal margin and usually beyond. *Antennal sockets (and therefore also frontal lobes) very widely separated, migrated outwards far away from cephalic midline.* Helcium projects from very low down on the anterior face of abdominal segment III, the latter with a high vertical anterior face above the helcium (also in male). Constriction between presclerites and postsclerites of abdominal segment IV reduced. Stridulitrum present on pretergite of abdominal segment IV. Male with mandibles very reduced and not opposable, edentate except for an apical tooth. [Synopsis, p. 171.]

Comments

The characters above that relate to helcium, abdominal segment III and male mandible structure are identical to Ponerini and are probably synapomorphies of the two.

Genus-rank taxon of Thaumatomyrmecini: *Thaumatomyrmex*.

Tribe **PLATYTHYREINI***Diagnosis*

With characters of Ponerinae. Clypeus broadly inserted between horizontal frontal lobes. Antennal sockets relatively widely separated, not closely approximated. Metacoxal cavities open or closed, the latter with a suture in the annulus (note 1). Mesotibia and metatibia each with 2 spurs, all pectinate (also in male) (note 2). Pretarsal claws usually each with a preapical tooth (note 3) (also in males). Helcium usually projects from about the midheight of the anterior face of abdominal segment III (note 4). Stridulitrum present on pretergite of abdominal segment IV. *Sculpture pruinose throughout* (note 5). Jugal lobe present on hindwing of alates. Male mandibles large and opposable; cerci present. Antenna with 12 segments (13 in male). [Synopsis, p. 171.]

Notes

(1) In many species the metacoxal cavities are open; among species dissected they are closed in *P. cribrinodis*, *modesta*, *parallela*, *schultzei*, *tricuspidata*.

(2) Presence of two pectinate spurs on both meso- and metatibia has often been used to diagnose *Platythyrea* among the ponerines; not only is this feature plesiomorphic but some *Leptogenys* and *Pachycondyla* species also have it.

(3) Pretarsal claws lack preapical teeth in workers of *P. bidentata*, *clypeata* and *quadridenta*.

(4) Australian species of *Platythyrea* have the helcium set lower than usual for this genus and thus have a relatively high anterior face to abdominal segment III, which may be confused with the characteristic condition seen in Ponerini.

(5) Universal pruinose sculpture is duplicated in *Belonopelta* (Ponerini) and the *Leptogenys*

maxillosa species group (Ponerini); similar sculpture occurs in the proceratiines *Probolomyrmex* and some *Discothyrea* species. In Australian *Platythyrea* the pruinose sculpture tends to be reduced.

Genus-rank taxon of Platythyreini: *Platythyrea*.

Collective group name in Ponerinae: **Ponerites*.

SUBFAMILY ECTATOMMINAE stat. n.

Diagnosis

With characters of poneromorph subfamilies. Clypeus broadly inserted between frontal lobes; anterior clypeal margin with a narrow lamellar apron (note 1). Outer margins of frontal lobes not pinched in posteriorly. Torulus not completely fused to frontal lobe. Promesonotal suture fully mobile to fully fused. *Metapleural gland orifice in profile a longitudinal to oblique curved slit or narrow crescent, bounded below by a convex rim of cuticle that directs the orifice dorsally to posterodorsally* (note 2). Metacoxal cavities open, either fully open or with endpoints of annulus acute and almost touching. Mesotibia and metatibia each with 0 - 1 spur (1 - 2 in males). Pretarsal claws with a preapical tooth (note 3). Petiole with or without tergosternal fusion (note 4); laterotergites indistinct to absent. Helcium projects from about the midheight of the anterior face of abdominal segment III; no high vertical anterior face to abdominal segment III above the helcium. Stridulitrum absent or present on pretergite of abdominal segment IV (note 5). Antenna with 12 segments (13 in male). [Synopsis, p. 172.]

Notes

(1) Also present in Heteroponerini and may be a synapomorphy of the two groups; the feature is also encountered among several groups of Myrmicinae.

(2) Cuticle below the slit-like gland orifice often bears dorsally directed guard-hairs. The structure of the orifice appears identical to that seen in basal Myrmicinae and may be a synapomorphy of the two groups.

(3) In *Ectatomma*, *Rhytidoponera* and almost all *Gnamptogenys* species the preapical tooth on the inner margin of each pretarsal claw is conspicuous. In a very few mainly minute, cryptic *Gnamptogenys* species the extra tooth is small, basal and inconspicuous; in a couple of *Gnamptogenys* species and in all *Typhlomyrmex* species it appears to be restricted to the foreleg claws alone. Preapical tooth is present on the pretarsal claws in males of all genera.

(4) The petiole shows tergosternal fusion in *Ectatomma*, *Gnamptogenys* and *Typhlomyrmex*. In *Rhytidoponera* the tergite and sternite are tightly attached but are not fused.

(5) A stridulitrum is entirely absent in *Typhlomyrmex* and *Gnamptogenys* but is present on the pretergite of abdominal segment IV in *Ectatomma*. In *Rhytidoponera* it is present either on the pretergite or on the presternite of abdominal segment IV. In the entire Formicidae the presence of a stridulitrum on sternite IV is known only here and in *Nothomyrmecia*, which certainly represents a parallelism.

Comments

(i) Ectatomminae is dimorphic as regards the jugal lobe of the hindwing. It is present in alates of *Ectatomma* but absent in those of *Rhytidoponera*, *Gnamptogenys* and *Typhlomyrmex*.

(ii) According to Hashimoto (1996) Ectatommini and Myrmicinae share the development of a cuticular lobe mid-anterodorsally on the pretergite of abdominal segment III, which is absent in all other ants. If universal this would constitute a powerful synapomorphy for the two groups. However, his sample size is small and lacks some critical components (for example Heteroponerini, Paraponerini, Typhlomyrmecini); a much wider survey is required.

Tribe-rank taxa of Ectatomminae: Ectatommini, Typhlomyrmecini.

Tribe ECTATOMMINI

[= Stictoponerini].

Diagnosis

With characters of Ectatomminae. Eyes present. *Palp formula showing marked sexual dimorphism* (note 1). *Promesonotal suture fused and immobile*, the pronotum and mesonotum not capable of movement relative to each other. Metacoxal cavities open, either fully open or with endpoints of annulus acute and almost touching. Petiole with or without tergo-sternal fusion (note 2). [Synopsis, p. 173.]

Notes

(1) Palp formula in worker and queen is 3,2 or 2,2; in males it is 5,3 or 4,3. A similar dimorphism is common in Ponerini (see Appendix 2) but is extremely sporadic and rare elsewhere in the Formicidae. This is suspected as analogous in Ponerini and Ectatommini, not homologous.

(2) See under Ectatomminae (note 4) above.

Genus-rank taxa of Ectatommini: *Ectatomma*, *Gnamptogenys*, *Rhytidoponera*.

Incertae sedis: **Electroponera*.

Tribe TYPHLOMYRMECINI

Diagnosis

With characters of Ectatomminae. *Eyes vestigial to absent*. Palp formula not showing sexual dimorphism (note 1). Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other. Metacoxal cavities open, with endpoints of annulus acute and almost touching. Petiole with tergo-sternal fusion; laterotergites absent. Stridulitrum absent from pretergite of abdominal segment IV. Pretarsal claws of anterior legs with a preapical tooth; claws simple elsewhere (all pretarsal claws with preapical tooth in male). *Male hypopygium with an elongate upcurved median digitiform process*. Jugal lobe absent from hindwing of alates. Antenna with 12 segments (13 in male). [Synopsis, p. 176.]

Notes

(1) Palp formula throughout is 1,2 or 1,1; see Appendix 2.

Genus-rank taxon of Typhlomymecini: *Typhlomymex*.

Incertae sedis in Ectatomminae: **Canapone*.

Comments

In **Canapone* (Cretaceous (Campanian) of Canada) the morphology of the anterodorsal head is invisible but the mandibles are large and the 12-segmented antenna is filiform. The appearance of the alitrunk (discrete mesonotum, impressed metanotal groove, bidentate propodeum), petiole (tall, upright and thickly scale-like, with a short anterior peduncle) and the condition of abdominal segments III and IV is very similar to *Ectatomma*. However, if **Canapone* is correctly placed here it retains three plesiomorphies that have been lost by all other worker ectatommines: ocelli are present, the maxillary palp is 6-segmented and the metatibia retains two spurs, one of which is pectinate.

SUBFAMILY HETEROPONERINAE subfam. n.

Diagnosis

With characters of poneromorph subfamilies. Cephalic dorsum with a median longitudinal carina that extends from anterior clypeal margin to occipital margin (note 1). Clypeus broadly inserted between frontal lobes. Anterior clypeal margin with a narrow lamellar apron (note 2). Torulus not completely fused to frontal lobe. Antennal scrobe usually

present. Promesonotal suture present and flexible, the pronotum and mesonotum capable of movement relative to each other. Metacoxal cavities closed, either with a suture in the annulus or fully fused. Metapleural gland orifice simple, directed posteriorly or laterally. Mesotibia and metatibia each with 1 spur. Petiole without tergosternal fusion; laterotergites present. Helcium projects from about the midheight of the anterior face of abdominal segment III; no high vertical anterior face to abdominal segment III above the helcium (note 3). Anterior face of abdominal segment III with an arched carina above the helcium (note 4). Stridulitrum absent from pretergite of abdominal segment IV. Antenna with 12 segments. [Synopsis, p. 176.]

Notes

(1) In some *Proceratium* (Proceratiini) a median carina may be present either on the clypeus or on the anterior head capsule, but not on both. In the Myrmicinae most species of *Tetramorium* (Tetramoriini) have a longitudinal median cephalic carina.

(2) Also present in Ectatomminae and some Myrmicinae.

(3) A number of *Heteroponera* species have the helcium projecting from relatively low down on the anterior face of abdominal segment III and in these the segment has a relatively high anterior face, which may be confused with the characteristic condition seen in Ponerini.

(4) Some *Heteroponera* have apparently secondarily lost the arched carina from above the helcium.

Comments

(i) No unequivocal apomorphy of Heteroponerinae is noted in the diagnosis but a number of characters are strongly suspected to have this status: cephalic median carina; antennal scrobes; arched carina above helcium; reduced tibial spurs. No heteroponerines exhibit the apomorphies given for other poneromorph subfamilies.

(ii) As a name, Heteroponerini has appeared twice before in the literature but both times in a taxonomically unavailable way; it therefore appears here as new.

Tribe-rank taxon of Heteroponerinae: Heteroponerini.

Tribe **HETEROPONERINI** trib. n.

Diagnosis: as subfamily.

Genus-rank taxa of Heteroponerini: *Acanthoponera*, *Heteroponera* [type-genus].

Incertae sedis: *Aulacopone* (known only from queen).

SUBFAMILY PARAPONERINAE stat. n.

Diagnosis

With characters of poneromorph subfamilies. Clypeus broadly inserted between frontal lobes. Torulus not completely fused to frontal lobe. *Bipartite antennal scrobes present, with dorsal portion above eye and ventral portion below it*. Promesonotal suture present but fused and immobile, the pronotum and mesonotum not capable of movement relative to each other. Metapleural gland orifice simple and directed laterally. Metacoxal cavities closed, with a suture present in the annulus. Metabasitarsal sulcus present (note 1). Mesotibia and metatibia each with 2 spurs. Empodium present on pretarsus. Pretarsal claws each with a preapical tooth. *Abdominal segment III distinctly reduced compared to IV* (note 2). *Petiole with a long anterior peduncle* (also in male); with complete tergosternal fusion and without laterotergites. Helcium projects from about the midheight of the anterior face of abdominal segment III; no high vertical anterior face to abdominal segment III above the helcium. Stridulitrum present on pretergite of abdominal segment IV. *Hypopygium armed along lateral margin with a row of spines* (note 3). Male hypopygium biaculeate. Jugal lobe present on hindwing of alates. Male mandible lobate, edentate. Palp formula 5,3. Antenna with 12 segments (13 in male). [Synopsis, p. 178.]

Notes

- (1) A metabasitarsal sulcus also occurs in ants of the myrmeciomorph subfamilies, presumably independently evolved.
- (2) See under myrmicomorphs (note 7)
- (3) The margin of the hypopygium also bears teeth or spiniform setae in the *Amblyopone reclinata* species group (Amblyoponini), in *Dinoponera* species (Ponerini) and in *Pachycondyla impressa* and *P. berthoudi* (Ponerini); each of these is presumed to be independently derived. Numerous dorylomorphs have the pygidium, but not the hypopygium, armed with teeth or spines.

Comments

- (i) This small subfamily contains just one extant species and one very closely related fossil form from the Miocene Dominican amber. It shows affinities with Ectatomminae and Heteroponerinae but can not be placed with confidence in either taxon; conversely, no satisfactory unique diagnosis can be formulated for the three taxa together, or for any two of the three.
- (ii) The strange position of *Paraponera* in the cladograms that are Figs 18 and 20 in Grimaldi, Agosti & Carpenter (1997) are probably due to the miscoding of several characters in the data matrix.

Tribe-rank taxon of Paraponerinae: Paraponerini.

Tribe **PARAPONERINI**

Diagnosis: as subfamily.

Genus-rank taxon of Paraponerini: *Paraponera*.

SUBFAMILY PROCERATIINAE stat. n.*Diagnosis*

With characters of poneromorph subfamilies. *Antennal sockets mostly to entirely exposed, close to anterior margin of head* (i.e. clypeus reduced) (note 1); sockets sometimes on a shelf-like frontoclypeal structure that overhangs the mandibles. Antennal sockets horizontal, in plane of transverse axis of head. Torulus not fused to frontal lobe. Promesonotal suture fused, vestigial to entirely absent; pronotum and mesonotum not capable of movement relative to each other. Metacoxal cavities either fully closed, or closed but with a suture in the annulus. Mesotibia and metatibia each with 1 spur, or mesotibia without spur. Pretarsal claws simple. Metapleural gland orifice simple, lateral. Petiole without laterotergites. Helcium projects from about the midheight of the anterior face of abdominal segment III; no high vertical anterior face to abdominal segment III above the helcium. Stridulitrum absent from pretergite of abdominal segment IV. Jugal lobe absent from hindwing of alates. Male mandibles opposable. Male with cerci absent. [Synopsis, p. 178.]

Notes

- (1) The location of the antennal sockets and their degree of exposure is regarded as having evolved independently of the dorylomorphs; see comments below.

Comments

- (i) The feature (1) above approximates, but does not correspond in detail, to what is generally observed in dorylomorphs, except for those cerapachyines in which horizontal frontal lobes are retained. Otherwise the lack of dorylomorph apomorphies in proceratiines, coupled with the general agreement of the latter with the poneromorph diagnosis and tendency to form a frontoclypeal shelf (never seen in dorylomorphs), reinforces the probability of convergence in these anterior head features between the two groups.

- (ii) Modification of the frontal lobes is evident throughout the Proceratiinae. Most

Proceratium species have discrete frontal lobes, the outer margins of which are elevated rather than transverse, and divergent posteriorly. Some species have the frontal lobes reduced to very slender erect carinae or absent anteriorly. In at least one *Proceratium* species there is an erect thin single lamella, formed by fusion of the lobes, between the antennal sockets. This last adaptation is universal in *Probolomyrmex* and also occurs in about half of *Discothyrea* species. The remainder of *Discothyrea* have a small to moderate raised platform behind the level of the antennal sockets, the sides of which are strongly convergent anteriorly. A few *Discothyrea* species exist that are intermediate between these two forms.

(iii) In all *Probolomyrmex*, all *Discothyrea* and at least one *Proceratium* species the open antennal sockets are borne on an anteriorly projecting shelf-like frontoclypeal structure that overhangs the mandibles. This frontoclypeal shelf has probably evolved separately in each proceratiine genus, but in each as a continuation of the process begun by clypeal reduction.

Tribe-rank taxa of Proceratiinae: Proceratiini, Probolomyrmecini.

Tribe PROCERATIINI

[= Discothyrinae].

Diagnosis

With characters of Proceratiinae. Antennal sockets mostly to entirely exposed (note 1). Promesonotal suture vestigial to entirely absent. Metacoxal cavities either fully closed, or with a suture present in the annulus. Petiole with tergosternal fusion; laterotergites absent. *Abdominal tergite IV enlarged and strongly vaulted, tergite hypertrophied with respect to sternite IV, which is reduced* (note 2). Male without a shelf-like frontoclypeal expansion. Antenna with 6 - 12 segments (13 in male). [Synopsis, p. 178.]

Notes

(1) See comments under Proceratiinae.

(2) Similar but patently convergent vaulting of abdominal tergite IV, with a corresponding reduction of the sternite, occurs in *Loboponera* (Ponerini), some *Gnamptogenys* (Ectatommini) and *Tatuidris* (Agroecomyrmecini).

Genus-rank taxa of Proceratiini: **Bradoponera*, *Discothyrea*, *Proceratium*.

Tribe PROBOLOMYRMECINI stat. n.

Diagnosis

With characters of Proceratiinae. Eyes absent in worker. Promesonotal suture absent. Metacoxal cavities fully closed, without a suture in the annulus. Mesotibia and metatibia each with 1 spur. Petiole without tergosternal fusion. Abdominal tergite IV not vaulted and sternite IV not reduced. *Male with frontoclypeal expansion present but not as strongly developed or as strongly projecting as in worker and queen. Forewing with "stigmal vein" present* (note 1). Antenna with 12 segments (13 in male). [Synopsis, p. 180.]

Notes

(1) In all known probolomyrmecine alates the forewing has a hook-shaped free vein depending from the pterostigma. This vein, properly 2r-rs plus the apical abscissa of Rs, is commonly termed the "stigmal vein" in Chrysidoidea, where its occurrence is frequent. Elsewhere in the ants its presence has only been detected in a few small *Cerapachys* species (other *Cerapachys* have more complete venation).

Comments

See comments under Proceratiinae.

Genus-rank taxon of Probolomyrmecini: *Probolomyrmex*.

Genera *incertae sedis* in poneromorph subfamilies: **Cretopone*, **Petropone*.

The myrmicomorph subfamilies

Subfamilies Agroecomymecinae, Myrmicinae.

Diagnosis

Paraglossae present on labium (note 1). Antennal sockets vertical or strongly inclined upward toward midline of head (note 2). Torulus not completely fused to frontal lobe. Ocelli absent (note 3). Promesonotal suture usually absent, less commonly vestigial; in the latter case the suture is fully fused and immobile, the pronotum and mesonotum incapable of movement relative to each other (note 4). Metacoxal cavities fully closed, the annulus broad and without a suture (note 5). Propodeal lobes usually present (note 6). Waist of two segments (petiole plus postpetiole) (note 7). *Petiole with complete tergosternal fusion* (note 8). Presclerites present on abdominal segment IV (first gastral) (also in male) *the presternite distinctly shorter than the pretergite* (note 9). Pretarsal claws without a preapical tooth on the inner margin (note 10). Sting present, usually functional. Jugal lobe absent from hindwing of alates. Pupae naked. [Synopsis, p. 181.]

Notes

(1) Paraglossae have not been recorded in *Metapone*; the presence of paraglossae is regarded as plesiomorphic.

(2) For distribution of character see notes under formicomorph subfamilies. In most myrmicomorphs the antennal sockets are relatively widely separated. They are secondarily approximated in tribes such as Stenammini, Solenopsidini and Melissotarsini and secondarily extremely widely separated in Agroecomymecini and Cataulacini.

(3) Ocelli are considered absent in myrmicomorph workers although in worker-polymorphic taxa, especially those with major workers that develop gyne-like characters (for example some *Pheidole*, *Pheidologeton*, *Oligomyrmex*, *Atta*, *Solenopsis geminata* group, some *Crematogaster depressa* group (list is not exhaustive)) the largest may have at least a median ocellus present. Elsewhere ocelli, or more usually the median ocellus alone, may be sporadically and perhaps teratologically developed in individuals or nests (observed in *Atopomyrmex*, *Cataulacus*, *Huberia*, *Metapone*, *Monomorium*). Ocelli are universal in alate queens and males.

(4) In some myrmicomorph taxa a line or feeble indentation across the dorsal alitrunk may indicate the original track of the promesonotal suture. Elsewhere in the family the suture is also universally fused and immobile in all dorylomorph subfamilies except Leptanilloidinae, and fused in the poneromorph groups Ectatommini, Paraponerini, Proceratiini and Probolomyrmecini. Plesiomorphic lack of promesonotal fusion, with retained mobility of pronotum and mesonotum relative to one another, is characteristic of the formicomorphs, myrmeciomorphs and leptanillomorphs, as well as the dorylomorph subfamily Leptanilloidinae and all poneromorphs except those mentioned above.

(5) For distribution of character see notes under Dolichoderinae.

(6) Propodeal lobes are universal in myrmicomorphs except for Melissotarsini and some Crematogastrini, where their absence is regarded as a secondary adaptation. For distribution of this character see notes under myrmeciomorph subfamilies.

(7) All myrmicomorphs have a two-segmented waist and the character probably represents a single evolutionary event. A single-segmented waist, the plesiomorphic condition, is universal in formicomorphs and poneromorphs except for Paraponerini and a few species of Proceratiini, where segment III is quite reduced and could be termed sub-postpetiolate. Among the myrmeciomorphs, dorylomorphs and leptanillomorphs both counts occur in each group and sometimes both counts occur within a single subfamily, as is the case in Myrmecinae, Cerapachyinae and Ecitoninae. It is obvious that the reduction of abdominal segment III to a distinct postpetiole has evolved independently many times in Formicidae.

(8) For distribution of character see notes under formicomorph subfamilies.

(9) The relatively short presternite on abdominal segment IV is also found in Pseudomyrmecinae. This feature has almost certainly arisen independently and is not a myrmicine/pseudomyrmecine synapomorphy.

(10) Pretarsal claws are also simple, lacking a preapical tooth, in the formicomorph and leptanillomorph subfamilies. In other subfamily groups such teeth are variously developed,

being absent in some taxa, present in others; the presence of such teeth is plesiomorphic.

SUBFAMILY AGROECOMYRMECINAE stat. n.

Diagnosis

With characters of myrmicomorph subfamilies. Mandibles large, *masticatory margins oppose at full closure but do not overlap* (note 1). *Eye at extreme posterior apex of deep antennal scrobe* (note 2). Clypeus very broadly triangular, broadly inserted between frontal lobes. *Antennal sockets (and frontal lobes) strongly migrated laterally, far apart and close to lateral margins of head* (note 3). Mesotibia and metatibia each with a pectinate spur. Alitrunk very short and compact. Petiole sessile; in posterior view the tergite and sternite not forming a circle. Abdominal segment III (postpetiole) without tergosternal fusion; segment large and very broadly articulated to segment IV. Helcium in frontal view with sternite bulging ventrally and overlapped by the tergite, sternite attached to tergite some distance up the inner tergal surface (note 4). *Abdominal segment IV with complete tergosternal fusion* (note 5), with stridulitrum on pretergite. *Sternite of abdominal segment IV reduced, tergite much larger than sternite and strongly vaulted* (note 6). [Synopsis, p. 181.]

Notes

(1) Mandibles that do not overlap at full closure are also characteristic of the dacetine tribe group and the isolated genus *Lenomyrmex*. These are certainly convergences as *Tatuidris* is otherwise very different morphologically and lacks Myrmicinae and dacetine tribe group apomorphies.

(2) Among the Myrmicinae eyes also occur at the apex of the scrobe only in some species of *Cephalotes*.

(3) Antennal sockets that are close to the lateral margins of the head also occur in the dacetine tribe group and in Cataulacini. In the former this is the result of narrowing of the anterior portion of the head, not of outward migration of the sockets which remain relatively close together. In *Cataulacus* the position of the sockets has been acquired by a parallel evolutionary process from a very different basic cephalic morphology.

(4) In other words the helcium here resembles that of the poneromorphs, which is also the generalised state prevalent throughout the Formicidae; see notes under dorylomorph subfamilies.

(5) With the exception of the strange amblyoponine genus *Adetomyrma*, tergosternal fusion of abdominal segment IV is otherwise universal only in the poneromorphs. Fusion of this segment in agroecomyrmeccines is regarded, perhaps incorrectly, as independently evolved here (its presence is of course speculative in the fossil genera). Its only other occurrence is in the myrmicine *Ankylomyrma* (Ankylomyrmini), where the condition is certainly uniquely derived.

(6) For other reductions of abdominal sternite IV see notes under formicomorph subfamilies.

Comments

(i) The diagnosis above is based mostly on *Tatuidris* as many characters, particularly those only shown by dissection, cannot be ascertained in the fossil taxa. In most respects *Tatuidris* can be considered the basalmost of Myrmicinae, probably the sister-group of that subfamily, but in some respects it appears as a highly specialised poneromorph. The general habitus is certainly myrmicine but *Tatuidris* lacks the Myrmicinae apomorphies given below, instead exhibiting more generalised structures.

(ii) In *Tatuidris* the antenna has 7 segments, the apical two forming a club. In both fossil genera the antenna has 12 segments, with the club 2-segmented in **Eulithomyrmex* and 3-segmented in **Agroecomyrmax*.

Tribe-rank taxon of Agroecomyrmeccinae: Agroecomyrmeccini.

Tribe AGROECOMYRMECINI

Diagnosis: as subfamily.

Genus-rank taxa of Agroecomymecini: **Agroecomymex*, **Eulithomyrmex*, *Tatuidris*.

SUBFAMILY MYRMICINAE

Diagnosis.

With characters of myrmicomorph subfamilies. Clypeus usually inserted between antennal sockets (note 1). Antennal sockets usually not strongly migrated laterally (note 2). *Metapleural gland orifice a longitudinal slit or narrow crescent that opens dorsally to posterodorsally, not overhung by a cuticular flange or flap* (note 3). *Petiole in posterior view with the fused tergite and sternite equally convex, their inner margins forming a circle. Tergite and sternite of helcium together form a rough circle in frontal view, the apices of the two sclerites meet end to end, the tergite does not overlap the sternite; helcium sternite bulges ventrally and is not retracted* (note 4) (also in male). Abdominal segment III (postpetiole) usually without tergo-sternal fusion (note 5); abdominal segment IV without tergo-sternal fusion (note 6), with or without a stridulitrum on pretergite. Sternite of abdominal segment IV not reduced, the segment not strongly downcurved. *Postpygidial glands absent* (note 7). [Synopsis, p. 182.]

Notes.

(1) Median portion of clypeus fails to extend back between the antennal sockets only in Melissotarsini; this is considered to be an independent apomorphic development of that tribe.

(2) The only genus in which the antennal sockets and frontal lobes are strongly migrated laterally is *Cataulacus*, in which feature it resembles *Tatuidris* (see above), but otherwise their cephalic morphologies are extremely different.

(3) Vertically directed guard-hairs that arise some distance below the orifice are frequently developed. External appearance of the metapleural gland is very similar to that encountered in Ectatomminae; the structure may be synapomorphic. The slit-like orifice of the gland is usually so narrow in Myrmicinae that it is inconspicuous.

(4) A ventrally bulging helcium sternite is also developed throughout the dorylomorph subfamilies, in *Discothyrea* (Proceratiini) and in *Tatuidris* (Agroecomymecini), but in all of these the sternite is retracted, so that tergite overlaps sternite, and the latter is attached some distance up the inner surface of the tergite.

(5) Tergo-sternal fusion of abdominal segment III occurs only in Cataulacini, Cephalotini and *Myrmecaria* among all the Myrmicinae. This may be a synapomorphy in the first two but is certainly independently derived in the last. For distribution of this character elsewhere in the family see notes under dorylomorph subfamilies.

(6) In *Ankylomyrma* the tergite of abdominal segment IV is enormously hypertrophied; the sternite appears to be a small sclerite fused to the anteroventral rim of the tergite: see under Ankylomyrmini.

(7) Postpygidial glands are also absent in the formicomorph subfamilies, almost certainly independently.

Comments

(i) This subfamily, overwhelmingly the largest, most diverse and most successful of the Formicidae, is divided into a number of tribes, which are gathered here into formal or informal tribe groups. Some groups of tribes are demonstrably monophyletic (the dacetine-, cephalotine-, and attine tribe groups) but the remainder are grouped only by inclusive diagnoses, so their monophyly remains in doubt. Within this latter set of groups some individual tribes are demonstrably monophyletic but others are not. A number of new, mainly monogeneric, tribes have been set up to accommodate the more obvious problem areas. In general these are taxa with a wealth of autapomorphic developments but a dearth of recognisable synapomorphies.

(ii) Many of the extreme inquiline (workerless permanent social parasites) encountered in

the Myrmicinae will fail taxon diagnosis because of their "inquiline syndrome" habitus and grossly convergent morphological reductions and modifications, acquired in response to their unique way of life. Inclusion of such forms in higher taxa must rest upon molecular analysis, for instance the proof by Sanetra & Buschinger (2000) that the extreme inquilines *Anergates* and *Teleutomymex* are correctly grouped with *Tetramorium*.

(iii) For another possible Ectatommini/Myrmicinae synapomorphy (as well as (3) above) see comments under the former.

Tribe-rank taxa of Myrmicinae:

Dacetine tribe group: Basicerotini, Dacetini, Phalacromyrmecini.

Cephalotine tribe group: Cataulacini, Cephalotini.

Attine tribe group: Attini, Blepharidattini.

Solenopsidine tribe group: Solenopsidini, Stennamini.

Myrmicine tribe group: Lenomyrmecini, Myrmicini, Paratopulini, Pheidolini, Tetramoriini.

Formicoxenine tribe group: Ankylomyrmini, Crematogastrini, Formicoxenini, Liomyrmecini, Meranoplini, Myrmicariini.

Individual tribes not falling into any of the above groups: Melissotarsini, Metaponini, Myrmecinini, Stegomyrmecini.

The dacetine tribe group

Tribes Basicerotini, Dacetini, Phalacromyrmecini.

Diagnosis

With characters of Myrmicinae. *Head capsule anterior to antennal sockets strongly narrowed from side to side* (note 1). *Masticatory margins of mandibles oppose but do not overlap at full closure* (note 2). Mandible usually triangular to elongate-triangular, serially multidentate and with a total dental count of > 7 ; mandible elongate and linear in some taxa. *Trigger hairs present on labrum or mandible. Labrum shape specialised* (note 3). Labrum and clypeo-labral hinge narrow, labio-maxillary complex usually narrow. Clypeus broadly triangular, very broadly inserted between frontal lobes; lateral portions of clypeus very short. *Preocular carina present*. Anterolateral surface of head very close to or directly beneath antennal socket. Mesotibial and metatibial spurs absent.

Notes

(1) The anterior portion of the head is so narrowed that a line drawn parallel to the long axis of the head, that touches the outermost point of the torulus, will pass outside or very close to the point where the outer margin of the fully closed mandible intersects the anterior clypeal margin. A similarly drawn line will pass well mesad of the outer mandibular intersection with the clypeus in all other myrmicines except *Cataulacus* and the agroecomymecine *Tatuidris*; this is because in these two genera the toruli have migrated far laterally and are very widely separated, but the anterior head is not narrowed (see discussion in Bolton, 2000: 12).

(2) Elsewhere in myrmicomorphs the mandibles convergently fail to overlap only in *Tatuidris* (Agroecomymecini) and *Lenomyrmex* (Lenomyrmecini).

(3) Labrum has lost the plesiomorphic formicid B-shape or D-shape and has become specialised by narrowing or elongation, or both; or by development of lateral arms (T-shaped) or by gross reduction.

Comments

Antenna with 4 - 12 segments; a two-segmented antennal club is almost universal, only the monotypic *Daceton* lacks a distinctly differentiated club.

Tribe BASICEROTINI

Diagnosis

With characters of dacetine tribe group. *Labrum with a deeply incised transverse groove*

across its entire width, distal of hinge with clypeus (note 1). Dorsal lobe of torulus hypertrophied and strongly curved downward, plane of movement of basal neck of scape very restricted (note 2). Base of scape passes through two right-angled bends, the two bends not in the same plane. Dorsolateral margin of head usually constricted or pinched-in posterior to frontal lobes. Antennal scrobe present, running below the eye (note 3). Eye (usually present) situated on extreme dorsolateral rim of scrobe or toward underside of upper scrobe rim. Mesopleural gland absent. *Helcium* arises from base of a broad, deeply concave depression in anterior surface of abdominal segment III. Tergite and sternite of abdominal segment IV (first gastral) transversely marginate basally and with characteristic sculpture of dense, sharply incised, separated punctures (note 4). Antenna with 7 - 9 or 12 segments, always with a 2-segmented club (13 segments in male). [Synopsis, p. 183.]

Notes

(1) Labral groove has a sharp edge or ridge as its distal margin; usually visible in specimens which have mandibles ajar.

(2) Outer surface of downcurved torulus lobe is nearly vertical and conceals part to most of condylar bulb of scape and antennal socket. Because of this the space in which the basal neck of the scape can move is narrow and directed fore and aft.

(3) An antennal scrobe that extends below the eye also occurs, convergently, in Cataulacini and the epopostrumiform dacetines.

(4) Form of sculpture on abdominal segment IV (first gastral) is striking and not obviously repeated elsewhere; a very few species have secondarily reduced or effaced the sculpture. Elsewhere in the Myrmicinae are many taxa with sculptured gasters, but even when the sculpture in these is of punctate form it tends to be reticulate-punctate or sparse, or on one sclerite but not the other. Basically it is not the dense deeply incised separated punctuation exhibited by the basicerotines on both sclerites.

Genus-rank taxa of Basicerotini: *Basiceros*, *Creightonidris*, *Eurhopalothrix*, *Octostruma*, *Protalaridris*, *Rhopalothrix*, *Talaridris*.

Tribe DACETINI

[= Dacetiti, = Epopostrumiti, = Orectognathiti, = Strumigeniti].

Diagnosis

With characters of dacetine tribe group. Mandible with a medially projecting cuticular basimandibular process on inner margin close to base; process is an extrusion of the mandible, not merely a modified tooth. Dorsum of labrum with an impression or pair of impressions medially that receive the basimandibular processes when the mandibles are fully closed (note 1). Mesopleural gland usually present. Antenna with 4 - 8 or 11-segments, with a 2-segmented club except in *Daceton* (13 segments in male). [Synopsis, p. 185.]

Notes

(1) Dorsal labral impressions are absent in *Acanthognathus* because its labrum is extremely specialised by reduction.

Genus-rank taxa of Dacetini: *Acanthognathus*, *Colobostruma*, *Daceton*, *Epopostruma*, *Mesostruma*, *Microdaceton*, *Orectognathus*, *Pyramica*, *Strumigenys*.

Tribe PHALACROMYRMECINI

Diagnosis

With characters of dacetine tribe group. Dentition of alternating large and small teeth from base to apex; main teeth becoming larger toward the base, basal tooth usually the largest (note 1). Antennal scrobe present, running above the eye. Mesopleural gland present. Katepisternum with an oblique groove or impression that extends from posterior margin of mesopleural gland towards metapleuron. Antenna with 8, 9 or 11 segments, always with a

2-segmented club (male unknown). [Synopsis, p. 192.]

Notes

(1) A few species of the dacetine genus *Pyramica* have the basal tooth as the largest on the mandible, but they do not have alternating dentition. In general the dentition of phalacromyrmecines runs counter to the rest of the Myrmicinae, where the apical tooth is almost always the largest.

Genus-rank taxa of Phalacromyrmecini: *Ishakidris*, *Phalacromyrmex*, *Pilotrochus*.

The cephalotine tribe group

Tribes Cataulacini, Cephalotini.

Diagnosis

With characters of Myrmicinae. Mandible short and thick, short-triangular or with subparallel basal and outer margins; with 1 - 3 apical teeth followed by a denticulate or edentate margin. Anterior clypeal margin without an isolated median seta. Median portion of clypeus broad, posteriorly broadly inserted between frontal lobes. Propodeal spiracle high on side and approximately at midlength of sclerite. Petiole sessile. *Abdominal segment III (postpetiole) with tergosternal fusion* (note 1). *Tergite of abdominal segment IV (first gastral) hypertrophied, comprising entire dorsum of gaster in dorsal view* (note 2). Gastral shoulder absent (note 3). Tergite of abdominal segment IV not strongly overlapping sternite ventrolaterally. Sting reduced to vestigial, not functional as a weapon (note 4). *Ileum dilated and thickened to accommodate micro-organisms*.

Notes

(1) Among the Myrmicinae tergosternal fusion of abdominal segment III is also present only in *Myrmecaria*. Given the otherwise enormously different morphologies of the cephalotine tribe group on the one hand and *Myrmecaria* on the other, independent development within the subfamily is a certainty. For distribution of the character through the family see notes under the dorylomorph subfamilies.

(2) Hypertrophy of abdominal tergite IV is also seen in *Ankylomyrma*, but there the tergite is ball-shaped and constitutes the whole of the segment.

(3) See comment (iii) under solenopsidine tribe group.

(4) Kugler (1978: 473-476) notes numerous similarities in fine structure of the sting mechanism in Cephalotini and Cataulacini that are not listed here.

Tribe CATAULACINI

Diagnosis

With characters of cephalotine tribe group. Median portion of clypeus with anterolateral corners forming triangular points. *Antennal sockets very widely separated*. Eyes dorsolateral, large. *Antennal scrobe present that extends below the eye; scape, when laid back, passes below the eye* (also in male) (note 1). Head posteroventrally with a triangular tooth on each side that locks into a corresponding groove on the prothorax. Procoxa smaller than metacoxa. Anterior femur can be tightly applied to concave side of pronotum. Katepisternum projects outward as a process or tooth. *Sexual dimorphism slight* (note 2). *Male with cusps absent from volsella*. Antenna with 11 segments, with a 3-segmented club (same in male). [Synopsis, p. 193.]

Notes

(1) Scrobes that extend below the eyes also occur in Basicerotini and epopostrumiform Dacetini, but in these the feature is restricted to female castes only and does not occur in the male.

(2) The females and males of *Cataulacus* are more alike than those of any other myrmecine and possibly of any other ant. The convergence in habitus is by the male upon the female and is regarded as a derived state.

Genus-rank taxon of Cataulacini: *Cataulacus*.

Tribe CEPHALOTINI

[= Cryptoceridae].

Diagnosis

With characters of cephalotine tribe group. Antennal scrobe present that extends in front of the eye or above the eye (note 1). *Proventriculus* mushroom-shaped, with a sclerotised cuticular framework (also in male). Antenna with 11 segments, gradually incrassate or with a 2-segmented or 3-segmented club (13 segments in male). [Synopsis, p. 194.]

Notes

(1) Scrobe never extends below the eye as in Cataulacini.

Comments

A stridulitrum is present on the pretergite of abdominal segment IV in *Procryptocerus*, absent in *Cephalotes*.

Genus-rank taxa of Cephalotini: *Cephalotes*, *Procryptocerus*.

The attine tribe group

Tribes Attini, Blepharidattini.

Diagnosis

With characters of Myrmicinae. *Anterior clypeal margin with a broad anteclypeal apron or flange that fits tightly over basal margins of mandibles and is at an angle to outline of clypeus proper* (not a direct continuation of median clypeus). *Anteclypeal apron of different sculpture/texture from median portion of clypeus*. Isolated median clypeal seta present; seta arises from anteclypeus or close to clypeal-anteclypeal junction. Antenna with 11 segments, gradually incrassate or with a 2- or weakly 3-segmented club (11 - 13 segments in male).

Tribe ATTINI

Diagnosis

With characters of attine tribe group. Mandible triangular, long; total dental count usually 7 or more (note 1). *Median clypeal seta arises from below level of other setae. Frontal lobes relatively broad, in full-face view with strongly convex outer margins that are markedly constricted or pinched-in posteriorly* (note 2). Metatibial spur absent. Tergite of abdominal segment IV (first gastral) not strongly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 3). *Larva with leg vestiges represented by open integumental slits; labrum short and narrow; mandibles fleshy, subconical, nearly straight. Cultivate fungi (mycelium or yeast)*. [Synopsis, p. 196.]

Notes

(1) See comment (ii) under solenopsidine tribe group. A total dental count as low as 5 is uncommon (*Mycetophylax*, *Mycocepurus*, *Cyphomyrmex rimosus* group); others have higher dental counts.

(2) Among the myrmicines frontal lobes that are strongly pinched-in posteriorly are also encountered in Basicerotini and some Dacetini. They occur sporadically and very rarely elsewhere in the subfamily, for example in some solenopsidines and some species or species groups of *Myrmica*. Outside the Myrmicinae they are characteristic of Ponerini and its closest related taxa.

(3) See comment (iii) under solenopsidine tribe group.

Comments

(i) In most Attini the posterior portion of the clypeus is broadly inserted between the frontal

lobes, but in *Myrmicocrypta* and *Mycocepurus* the posterior clypeus is very narrow and approximates the condition seen in Stenammini. In *Apterostigma* the inner margins of the frontal lobes may be touching or nearly so in full-face view.

(ii) Most attine taxa have a distinctly pheidoline alitrunk construction but none appears to retain a promesonotal suture across the dorsum.

(iii) Pterostigma of forewing is usually absent or very reduced in most attine taxa; it remains prominent at least in some species of *Acromyrmex*.

Genus-rank taxa of Attini: *Acromyrmex*, *Apterostigma*, *Atta*, *Cyphomyrmex*, *Mycetagroicus*, *Mycetarotes*, *Mycetophylax*, *Mycetosoritis*, *Mycocepurus*, *Myrmicocrypta*, *Pseudoatta*, *Sericomyrmex*, *Trachymyrmex*.

Incertae sedis: *Attaichnus* (ichnotaxon).

Tribe BLEPHARIDATTINI

Diagnosis

With characters of attine tribe group. Mandible triangular, short (note 1); total dental count 5 or less. Clypeus broadly inserted between frontal lobes. Propodeal spiracle low on side. Metatibial spur absent. Tergite of abdominal segment IV (first gastral) slightly to broadly overlapping sternite on ventral surface of gaster. Gastral shoulder absent to weakly present (note 2). Antenna with a 2-segmented club. [Synopsis, p. 201.]

Notes

(1) See comment (ii) under solenopsidine tribe group.

(2) See comment (iii) under solenopsidine tribe group.

Comments

Antennal scrobes and strongly developed frontal carinae are universal in this small tribe; the propodeum is always armed. Given the synapomorphies proposed for the attine tribe group the reduced mandibles of blepharidattines must be considered apomorphic and hence convergent upon those other myrmicine groups which have mandibles designated as short.

Genus-rank taxa of Blepharidattini: *Blepharidatta*, *Wasmannia*.

The solenopsidine tribe group

Tribes Solenopsidini, Stenammini.

Diagnosis

With characters of Myrmicinae. *Clypeus constricted posteriorly*, moderately broadly to very narrowly inserted between frontal lobes (note 1). Antennal sockets and inner margins of frontal lobes relatively closely approximated. *Median portion of clypeus narrowed from side to side and elevated, usually bicarinate on the dorsal surface of the elevated section* (note 2); carinal pair commences between or at the anterior apices of the frontal lobes. Clypeus without an isolated median longitudinal carina. Ventral surface of metathorax simple (note 3).

Notes

(1) The small genera *Diplomorium* and *Allomerus* are problematical as the posterior portion of the clypeus is relatively broad. Whether this is a plesiomorphic retention or a derived state remains unresolved, but nevertheless weakens the diagnosis.

(2) In some species the pair of carinae have become so closely approximated that they have fused and form a single pronounced median ridge or rostrum (very different in appearance from the slender median carina seen elsewhere in Myrmicinae which retain a broad clypeus). In some taxa the carinae are exaggerated or hypertrophied and project anteriorly as a fork-like structure. Conversely, in some genera of this group there are species in which the paired carinae are secondarily obsolete, but the median clypeus remains high and narrow, and narrowly inserted between the frontal lobes.

(3) Ventral metathorax lacks a metasternal process except in the *Vollenhovia pertinax* group and *Megalomyrmex latreillei*; it always lacks posteriorly divergent carinae that extend anteriorly beyond the metacoxal cavities, and lacks an anteriorly extended petiolar foramen.

Comments

(i) In genera of the solenopsidine, myrmicine and formicoxenine tribe groups in which the workers are dimorphic or polymorphic, characters discussed here that involve the head and mandibles apply to the minor workers. This is because the minor workers tend to retain more generalised states whilst the major workers tend to have the morphology of the head and mandibles variously, and sometimes strikingly, specialised.

(ii) In Myrmicinae where mandibles are regularly triangular or subtriangular in shape the mandibles are considered long if either the masticatory margin has 7 or more teeth, or the masticatory margin is equal to or longer than the basal margin, or if both of these occur. Conversely, mandibles are considered short if either the masticatory margin has only 2 - 5 teeth (rarely 6), or the masticatory margin is subequal to or shorter than the basal margin, or if both of these occur. The short condition is regarded as apomorphic for two reasons. First, long mandibles are characteristic of tribes that are otherwise morphologically more generalised (Myrmicini, Tetramoriini) and are also prevalent among poneromorphs. Second, morphoclinal reductions in dentition and masticatory margin length can be demonstrated within some tribes (Stenammini, Pheidolini).

(iii) In ventral view the base of abdominal sternite IV (first gastral) may have the tergosternal suture curving evenly and shallowly to the base, or have a low ridge on the sternite near the base, paralleling the suture; this is the condition in most myrmicine groups (= "gastral shoulder absent"). However, in some groups (Solenopsidini, some pheidolines, some formicoxenines) the basal part of the sternite projects anteriorly on each side of the postpetiole and forms a prominent shoulder or tooth (= "gastral shoulder present"). Frequently this sternal prominence is so extensive that it can be seen in dorsal view, projecting anteriorly beyond the outline of the tergite.

Tribe STENAMMINI

[= Calyptomyrmecini, = Proattini].

Diagnosis

With characters of solenopsidine tribe group. Mandible triangular, long (note 1), stoutly constructed; total dental count 4 - > 12 (note 2). Anterior clypeal margin usually without an isolated stout median seta (note 3). Clypeal bicarinae arise between the frontal lobes and usually extend toward the anterior margin; rarely they form a projecting clypeal fork or a rostrum (note 4). Closely approximated frontal lobes elongate, with straight to shallowly convex outer margins and not pinched-in posteriorly (note 5); toruli usually concealed (note 6). Dorsal alitrunk usually without trace of promesonotal suture (note 7). Propodeum usually armed with teeth or spines (note 8). Metatibial spur usually absent. Tergite of abdominal segment IV (first gastral) not strongly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 9). Tergite of abdominal segment IV (first gastral) without a U-shaped trench immediately behind postpetiole. Sculpture usually pronounced on head and dorsal alitrunk, only rarely unsculptured and smooth. Antenna with 9 - 12 segments, with a 2- or 3-segmented club (10 - 13 segments in male). [Synopsis, p. 202.]

Notes

(1) See comment (ii) under solenopsidine tribe group. Two species of *Rogeria* would qualify as having the mandible short.

(2) Usually 7 or more teeth but with reduced counts in *Proatta* [4 - 5], *Dacatria* [5], *Lachnomyrmex* [5] and some *Rogeria* [4 - 9]. In these genera the masticatory margin is usually still long, the teeth being separated by diastemata, which may suggest an apomorphic secondary reduction in dental count.

(3) *Proatta* has no projecting clypeal setae. A single median seta occurs in the monotypic genera *Dacatria* and *Rostromyrmex* and in one or two species of *Stehamma* and *Rogeria*. In

the last two genera individuals with a single median seta may occur in the same series as others with the more usual pair of setae that straddle the midline.

(4) A clypeal fork is strongly present in *Calyptomyrmex* and *Dicroaspis*, incipient in a few *Lordomyrma*. A large prominent rostrum occurs in *Rostromyrmex*. The clypeal bicarinae are secondarily inconspicuous or absent in a couple of *Lordomyrma* species, extremely pronounced in some others.

(5) A few New Caledonian *Lordomyrma* species have very large frontal lobes with strongly convex outer margins.

(6) Toruli are regularly exposed only in *Stenamma*, *Ancyridris*, *Vollenhovia* and some *Lordomyrma*.

(7) The promesonotal suture remains as a vague impression across the dorsum only in a few species of *Stenamma*.

(8) Propodeum is regularly unarmed only in *Vollenhovia*.

(9) See comment (iii) under solenopsidine tribe group.

Comments

(i) Stenammini is an obvious and fairly uniform group of genera, but no unequivocal apomorphy for the group has yet been discovered.

(ii) *Proatta* and the attines. Some "lower" attine genera (*Myrmicocrypta*, *Mycocepurus*) have a habitus similar to *Proatta*: spiny alitrunk, narrow posterior clypeus, closely approximated frontal lobes, etc. These have been invoked to claim that *Proatta* may be related to the Attini (e.g. Moffett, 1987). But *Proatta*, apart from not growing fungi, lacks the apomorphic anteclypeus, median clypeal seta, and frontal lobe shape characteristic of the attines. Also, in the few attines with a bicarinate clypeus the carinae arise from the extreme apices of the frontal lobes and appear to constitute the normal lateral edges of the clypeus. In stenammines the carinae characteristically arise between the frontal lobes. Finally, most "lower" attines have the base of the first gastral segment extremely dorsoventrally flattened where it articulates with the postpetiole, a feature not seen in stenammines.

(iii) Stenammini and *Pheidole*. Some minor workers of smaller *Pheidole* species are quite stenammine in habitus. However, the pheidolines always have the clypeus broad between the frontal carinae and never have the clypeus bicarinate (frequently there is a single median carina). In addition the pheidolines have the first gastral sternite with a shoulder, the tergite strongly overlapping the sternite and the mandibles with a characteristic dentition where tooth 3 from the apex is smaller than 4, or the reduced third tooth is followed by 1 - 2 minute denticles before the larger fourth tooth, a dental pattern not seen in stenammines.

(iv) The two extant genera noted below as *incertae sedis*, *Adelomyrmex* and *Baracidris*, have been left here from the Bolton (1994) synopsis although they do not agree with the diagnosis and should properly be excluded from Stenammini. They are the only known myrmicine ants to combine the plesiomorphic female maximum number of antennal segments (12) with an apomorphic 2-segmented club. This character, along with others both known and recently discovered will be used by Dr Fernando Fernández (Inst. Humboldt) in a forthcoming publication to diagnose and revise a separated tribe based on these two genera.

Genus-rank taxa of Stenammini: *Ancyridris*, *Bariamyрма*, *Calyptomyrmex*, *Cyphoidris*, *Dacatria*, *Dacatinops*, *Dicroaspis*, *Indomyrma*, *Lachnomyrmex*, *Lasiomyrma*, *Lordomyrma*, *Proatta*, *Rogeria*, *Rostromyrmex*, *Stenamma*, *Tetheamyрма*, *Vollenhovia* (tribal transfer).

Incertae sedis (see comment (iv) above): *Adelomyrmex*, *Baracidris*, **Ilemomyrmex*.

Tribe SOLENOPSIDINI

[= **Hypopomyrmecitini* syn. n., = *Megalomyrmecini*, = *Monomoriini*, = *Pheidologetini* syn. n.].

Diagnosis

With characters of solenopsidine tribe group. Mandible subtriangular to triangular, short (note 1); total dental count 2 - 6 (note 2). Anterior clypeal margin with or without an isolated stout median seta. Clypeal bicarinae usually distinct (note 3). Frontal lobes small and narrow, with straight to convex outer margins. Toruli visible in full-face view, their maximum exposure posterior to point of maximum width of frontal lobes (note 4). Antennal scrobes and frontal carinae usually absent (note 5). Dorsal alitrunk without promesonotal suture. Metatibial spur simple to absent. Propodeal lobes usually low and rounded. Tergite of abdominal segment IV (first gastral) broadly overlapping sternite on ventral surface of gaster. Gastral shoulder present (note 6) (also in males). Head and dorsal alitrunk usually smooth or only weakly sculptured, rarely with strong sculpture (note 7). Antenna with 7 - 12 segments, with a 2-, 3-, or 4-segmented club (11 - 13 segments in male). [Synopsis, p. 207.]

Notes

- (1) See comment (ii) under solenopsidine tribe group.
- (2) Mandible usually has a total dental count of 3 - 5. A very few *Monomorium* have 6 teeth and in the same genus the extremely rare count of 2 occurs. In *Megalomyrmex*, members of the *M. silvestrii* group have the dental count increased to 6 - 13 through the secondary development of minute denticles between or behind the main teeth. Dental count is reduced to 2 in *Afroxyidris* where the more basal teeth have been lost to leave an edentate margin.
- (3) Clypeal bicarination is secondarily reduced or lost in the *Solenopsis* group among the small genera *Anillomyrma*, *Bondroitia* and *Diplomorium*, and in a few species of *Monomorium* and *Megalomyrmex*. In the *Carebara* group some species of *Carebara*, *Oligomyrmex* and *Tranopelta*, the monotypic *Afroxyidris* and most species of *Pheidologeton* have clypeal bicarination that is vestigial or absent. In *Mayriella* the bicarination is enhanced and projects anteriorly as a clypeal fork, as in *Calcyptomyrmex* and *Dicroaspis* (Stenammini).
- (4) A similar exposure of the torulus occurs in Pheidolini.
- (5) Present only in *Mayriella* and major workers of a few species of *Oligomyrmex*.
- (6) See comment (iii) under solenopsidine tribe group. The gastral shoulder is secondarily reduced or lost in some large, heavily sculptured *Monomorium* species of Australia. It is also lost in *Anillomyrma* because the postpetiole articulation has migrated dorsally on abdominal segment IV. In these forms the shoulder may be retained by males.
- (7) A number of Australian *Monomorium* species, some species of the *Monomorium scabriceps* group, some *Oxyepocus*, *Mayriella* and some major workers of *Oligomyrmex* are strongly sculptured. Members of the *Monomorium salomonis* group tend to be reticulate-punctate or reticulate-shagreenate.

Comments

(i) Queens of *Paedalgus*, many *Solenopsis* and some *Oligomyrmex* have one antennal segment more than their workers. Different worker morphs of *Oligomyrmex* may have different antennomere counts.

(ii) Genus groups within Solenopsidini

(ii.1) *Solenopsis* genus group

Anterior clypeal margin usually with an isolated stout median seta [the seta may be masked in some *Megalomyrmex* species, and in members of the *Monomorium scabriceps* group, by the development of a row of strong setae along the entire margin. It appears undeveloped in some *Solenopsis* males, though whether this is primary or secondary remains unclear]. Alates with marginal (= radial) cell of forewing always open.

(ii.2) *Carebara* genus group

Anterior clypeal margin without an isolated stout median seta. Alates with marginal (= radial) cell of forewing usually, but not always, closed [closure of the marginal cell (by Rs meeting R apically) is the plesiomorphic state].

(iii) Most members of *Solenopsis* genus group have the propodeum rounded and unarmed but species of *Nothidris* and *Oxyepocus*, and a few *Monomorium* species, have the

propodeum angulate, denticulate, dentate or even short-spiniform. In the *Carebara* group an angulate, denticulate or dentate propodeum is prevalent in *Pheidlogeton*, *Oligomyrmex* and relatives, but frequently unarmed elsewhere.

(iv) The genus-group name *Neoblepharidatta* is newly synonymised with *Oligomyrmex*; see Appendix 1.9.

Genus-rank taxa of Solenopsidini:

Solenopsis genus group: *Allomerus*, *Anillomyrma*, *Bondroitia*, *Carebarella*, *Diplomorium*, *Epelysidris*, *Megalomyrmex*, *Monomorium*, *Nothidris*, *Oxyepoecus*, *Phacota*, *Solenopsis*.

Carebara genus group: *Adlerzia* (tribal transfer), *Afroxyidris* (tribal transfer), *Carebara* (tribal transfer), *Machomyrma* (tribal transfer), *Mayriella* (tribal transfer), *Oligomyrmex* (tribal transfer), *Paedalgus* (tribal transfer), *Pheidologeton* (tribal transfer), *Tranopelta* (tribal transfer).

Incertae sedis: **Hypopomyrmex* (tribal transfer), **Oxyidris* (tribal transfer).

The myrmicine tribe group

Tribes Lenomyrmecini, Myrmicini, Paratopulini, Pheidolini, Tetramorini.

Diagnosis

With characters of Myrmicinae. Mandible triangular, long (note 1), usually stoutly constructed. Clypeus posteriorly broadly inserted between frontal lobes. Anterior clypeal margin without an isolated stout median seta (note 2). Inner margins of frontal lobes and antennal sockets relatively widely separated. Median portion of clypeus broad from side to side, flat to convex but not elevated, not bicarinate; frequently with a median longitudinal carina (note 3).

Notes

(1) See comment (ii) under solenopsidine tribe group.

(2) Anterior clypeal margin either has a pair of stout setae that straddle the midpoint, or an undifferentiated continuous row of setae.

(3) Median portion of clypeus often (but by no means always) has a series of longitudinal carinae or rugulae, the median of which is unpaired. If this median carina is lost a situation that appears roughly like the bicarinate solenopsidine condition may be encountered, but the carinae here tend to be quite widely separated, parallel, and not originating between the frontal lobes.

Comments

(i) The mandible form described above may be plesiomorphic in Myrmicinae as a whole as it is the form that is general among the poneromorphs. Apart from the tribes included here it also occurs in Attini, Stenammini, Stegomyrmecini, *Acanthomyrmex* of Myrmecini, and in modified form in some genera of the dacetine tribe group.

(ii) Although the individual tribes included here may be fairly easy to characterise the diagnosis of the group as a whole may be entirely plesiomorphic; useful for saying what the group is not, but phylogenetically useless.

Tribe MYRMICINI

Diagnosis

With characters of myrmicine tribe group. Mandible long, with total dental count 4 - > 12 (note 1). Torulus usually concealed by strong frontal lobe in full-face view (note 2). Dorsal alitrunk usually without trace of promesonotal suture (note 3). Promesonotum not domed in profile, mesonotum not elongate. Propodeal spiracle low on side. Mesosternum with a transverse trench posterior to procoxae. Metasternum complex (note 4). Metatibial spur usually present, rarely absent. Petiole nodiform (or derived from a nodiform state), with an anteroventral process. Tergite of abdominal segment IV (first gastral) not broadly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 5). Alates

with myrmicine sequence of vein reduction in major genera (note 6). Antenna with 11 - 12 segments, with a 3 - 5-segmented club (12 - 13 segments in male). [Synopsis, p. 220.]

Notes

(1) Total dental count is usually 7 or more. The lower dental counts are accounted for by *Secostruma* which has part of its long masticatory margin edentate, and by *Hylomyrma* which has reduced spaced dentition on a long oblique masticatory margin.

(2) See under Pheidolini, note 2.

(3) Promesonotal suture may be represented by a fused weak suture, or a vague or vestigial shallow impression across the dorsum, but is usually absent.

(4) In both Myrmicini and Tetramoriini the metasternum has a complex structure. The metasternal process is usually large and very conspicuous (small in *Eutetramorium*, *Huberia*) and located just anterior to the metasternal pit. Posterior to the process is either a pair of divergent carinae that extend from the process, between the metacoxal cavities, to the petiolar foramen; or the foramen itself extends anteriorly almost to the metasternal pit (as if the area within the carinae had dropped out).

(5) See comment (iii) under solenopsidine tribe group.

(6) Sequence illustrated in Bolton (1988a).

Comments

Lateral portions of clypeus in Myrmicini may be modified into a shielding wall, as in Tetramoriini. The modification, resulting from the depression of the antennal sockets into the head [see comments under Tetramoriini], is found in a few *Myrmica* species but is more common in *Pogonomyrmex* and *Hylomyrma*, and also occurs in *Secostruma* and *Eutetramorium*. A clypeal shielding wall is rarely developed outside these two tribes (eg. *Mycetophylax* (Attini), *Dacatria* (Stenammini)).

Genus-rank taxa of Myrmicini: *Eutetramorium*, *Huberia*, *Hylomyrma*, *Manica*, *Myrmica*, *Pogonomyrmex*, *Secostruma* (tribal transfer).

Incertae sedis: **Nothomyrmica*.

Tribe TETRAMORIINI

[= Anergatini, = Teleutomyrmini].

Diagnosis

With characters of myrmicine tribe group. Mandible long, with total dental count 6 - > 12 (note 1). Lateral portions of clypeus raised into a shielding wall or sharp ridge in front of antennal sockets (note 2). Torulus usually concealed by frontal lobe in full-face view (note 3). Dorsal alitrunk without promesonotal suture. Promesonotum not domed in profile, mesonotum not elongate. Propodeal spiracle low on side. Mesosternum without a transverse trench posterior to procoxae. Metasternum complex (note 4). Metatibial spur usually present and simple, less commonly absent. Petiole nodiform (or derived from a nodiform state), with an anteroventral process. Tergite of abdominal segment IV (first gastral) not broadly overlapping sternite on ventral surface of gaster. Gasteral shoulder absent (note 5). *Sting with a spatulate to pennant-shaped lamellate appendage that projects from the dorsum of the shaft* (note 6). *Male with second funicular segment of antenna an elongate fusion-segment*. Antenna with 10 - 12 segments, with a 3-segmented club (8 - 11 segments in male). [Synopsis, p. 224.]

Notes

(1) Usually 7 teeth or more. The mandible is falcate and edentate in the dulotic genus *Strongylognathus*.

(2) The lateral clypeal shielding wall is absent, presumed secondarily lost, in *Decamorium* and a few species of *Tetramorium* (*T. repentinum*, *T. sitefrum*). Presence of a shielding wall also occurs widely in Myrmicini and sporadically elsewhere; see comments below and under Myrmicini.

(3) See under Pheidolini, note (2).

(4) Described under Myrmicini, note (4).

(5) See comment (iii) under solenopsidine tribe group.

(6) The monotypic inquiline genera and the socially parasitic *Strongylognathus* lack the sting appendage. It is also missing in a single arboreal *Tetramorium* species (*T. aculeatum*) but is present in all other species of the *T. aculeatum* group.

Comments

(i) In Tetramoriini and Myrmicini the antennal sockets tend to be depressed into the head, the socket being located at the medial side of the depression. Because of this there is a tendency for the scape base to angle sharply downward and to develop a lobe, semicircle or near circle of cuticle to protect its articulation. Without the angle the scape shaft could not clear the outer edge of the depression in which it articulates. Most genera of both tribes exhibit this feature to various degrees, but *Myrmica* shows a range of developments from wholly absent (*M. rubra* group) to strongly exhibited (*M. excita*). See also comments under Myrmicini.

(ii) The genus-group name *Apomyrmex* is newly synonymised with *Tetramorium*; see Appendix 1.5.

Genus-rank taxa of Tetramoriini: *Anergates*, *Decamorium*, *Rhoptromyrmex*, *Strongylognathus*, *Teleutomyrmex*, *Tetramorium*.

Tribe PHEIDOLINI

[= Anergatidini, = Aphaenogastrini, = Lophomyrmicini, = Ocymyrmicini].

Diagnosis

With characters of myrmicine tribe group. Mandible long, with total dental count 4 - > 12 (note 1). Frontal lobes narrow and elevated, toruli exposed in full-face view (at least in minor workers in dimorphic or polymorphic taxa); maximum width and exposure of torulus is posterior to the point of maximum width of frontal lobe (note 2). Frontal carinae and antennal scrobes absent (note 3). *Promesonotum domed in profile* and usually traversed by a fused promesonotal suture; *mesonotum elongated posteriorly and its posterior portion sloped* (note 4). Propodeal spiracle high on side. Mesosternum with a transverse trench posterior to procoxae. Metasternum usually simple (note 5). Petiole without an anteroventral process or at most with a small crest or tooth. Tergite of abdominal segment IV (first gastral) overlapping sternite on ventral surface of gaster. Gastral shoulder present or absent (note 6). Alates with pheidoline sequence of vein reduction in major genera (note 7). Antenna with 9 - 12 segments, either filiform, or gradually incrassate or with a 3- or 4-segmented club (club never 2-segmented) (8, 11 - 13 segments in male). [Synopsis, p. 228.]

Notes

(1) If total dental count is < 7 then mandible is massively developed and with a long masticatory margin, or teeth are double-ranked on part of the masticatory margin.

(2) In all Paratopulini and almost all Myrmicini and Tetramoriini the torulus is concealed by the strong frontal lobe in full-face view. However, in some tetramoriines (eg. *Tetramorium bicarinatum* group, *T. aculeatum* group, some *Rhoptromyrmex*, *Strongylognathus*) the frontal lobes have become secondarily narrowed and the outer margin of the torulus is visible. Even in these the lobes are usually not as narrow and delicate as in the pheidolines.

In Myrmicini a few species of *Myrmica* and *Pogonomyrmex* have the toruli just visible either because the frontal lobes are eroded to accommodate scape structures, or because the lobes are almost vertical (though still large).

In *Huberia* (Myrmicini) the torulus is partially exposed but this occurs in front of the point of maximum width of the frontal lobe, which implies a secondary erosion of the anterior part of the frontal lobe and stands in contrast to the situation in Pheidolini (and Solenopsidini) where the torulus is exposed posterior to the point of maximum width of the frontal lobe.

In *Secostruma* (Myrmicini) the toruli themselves are massively expanded. Within the Pheidolini the only species known to have massive toruli is *Aphaenogaster relictus*, in which they take over most of the function of the frontal lobes.

(3) Frontal carinae and antennal scrobes are encountered in the major workers of some *Pheidole* species and groups. See under solenopsidine tribe group, comment (i).

(4) A very similar promesonotal development occurs in *Lenomyrmex* and *Stegomyrmex*, and is possibly synapomorphic for all three. The characteristic alitrunk shape of the "higher" Attini may be a derivative condition. A domed promesonotum is also seen in some *Lordomyrma* species and in some solenopsidines but in these the curvature is usually quite even from front to back, there is usually no marked posterior prolongation of the mesonotum and no trace dorsally of the promesonotal suture.

(5) A simple metasternum is usual but in *Messor* and a few *Aphaenogaster* a moderate to large metasternal process is developed. The petiolar foramen is never extended anteriorly.

(6) See comment (iii) under solenopsidine tribe group.

(7) Sequence illustrated in Bolton (1982).

Comments

The genus-group name **Sinaphaenogaster* is newly synonymised with *Aphaenogaster*; see Appendix 1.11.

Genus-rank taxa of Pheidolini: *Anisopheidole* (**tribal transfer**), *Aphaenogaster*, *Chimaeridris*, *Goniomma*, *Kartidris*, *Lophomyrmex*, *Messor*, *Ocymyrmex*, *Oxyopomyrmex*, *Pheidole*.

Incertae sedis: **Lonchomyrmex*, **Paraphaenogaster*.

Tribe LENOMYRMECINI trib. n.

Diagnosis

With characters of myrmicine tribe group. Mandible long, *crenulate and with 10 - 20 minute blunt pegs distally*. *Masticatory margins of mandibles at full closure mostly oppose, margins only overlap in the apical quarter* (note 1). Antennal sockets depressed into head, the socket located on the medial side of the depression (note 2). Frontal lobes narrow and small, toruli exposed in full-face view (note 3). Frontal carinae and antennal scrobes absent. Dorsal alitrunk with promesonotal suture present. Promesonotum domed in profile, mesonotum elongate posteriorly and its posterior portion sloped (note 4). Propodeal spiracle high on side. Petiole with an anteroventral tooth. Tergite of abdominal segment IV (first gastral) not broadly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 5). Antenna with 11 segments, with a 2-segmented club (male unknown). [Synopsis, p. 236.]

Notes

(1) Opposition of the masticatory margins, as compared to them overlapping throughout their length, is only seen elsewhere in the unrelated dacetine tribe group and in the agroecomyrmecines; the dentition of *Lenomyrmex* is unique.

(2) *Lenomyrmex* resembles the majority of Myrmicini and Tetramoriini in this respect; see comments under Tetramoriini.

(3) The frontal lobes and toruli of *Lenomyrmex* resemble those of the pheidolines.

(4) Plesiomorphic retention of a fused promesonotal suture is also characteristic of many pheidolines (and stegomyrmecines). The shape of the promesonotum matches the prevailing pheidoline structure, which may be synapomorphic for the two groups as well as for *Stegomyrmex*.

(5) See comment (iii) under solenopsidine tribe group.

Comments

In overall appearance the lenomyrmecines bear closest resemblance to the Pheidolini, but there are a number of similarities with the tetramoriine and myrmicine tribes. These problems have been side-stepped for the moment, but not avoided, by isolating

Lenomyrmex in its own tribe, based on its autapomorphic mandibular structure.

Genus-rank taxon of Lenomyrmecini: *Lenomyrmex* [type-genus].

Tribe **PARATOPULINI** trib. n.

Diagnosis

With characters of myrmicine tribe group. Mandible long, with total dental count 8 - 11. Torulus concealed by strong frontal lobe in full-face view (note 1). Frontal carinae absent to weakly present; scrobes absent. Dorsal alitrunk without promesonotal suture; alitrunk long and low. Promesonotum not domed in profile, mesonotum not elongate. Propodeal spiracle low on side. Mesosternum with a transverse trench posterior to procoxae. Metasternum simple. Metatibial spur absent. Petiole nodiform, with a small dentiform anteroventral process. Tergite of abdominal segment IV (first gastral) not broadly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 2). Male with third antennal segment (second funicular) having a kink or indentation in its leading edge. Antenna with 12 segments, with a 3-segmented club (13 segments in male). [Synopsis, p. 237.]

Notes

(1) See under Pheidolini, note (2).

(2) See comment (iii) under solenopsidine tribe group.

Comments

This problematical taxon may be misplaced here. Apart from the stout multidentate mandibles its morphology is very similar to the *Podomyrma* and *Romblonella* genus groups of Formicoxenini. It is possible that *Paratopula* is a formicoxenine that has retained a plesiomorphic mandible form, or its mandible may represent a reversal from the shorter, fewer-toothed structure characteristic of the formicoxenines and which is regarded as apomorphic. Its isolation in its own tribe is therefore for convenience at the present time.

Genus-rank taxon of Paratopulini: *Paratopula* [type-genus].

The formicoxenine tribe group

Tribes Ankylomyrmini, Crematogastrini, Formicoxenini, Liomyrmecini, Meranoplini, Myrmicariini.

Diagnosis

With characters of Myrmicinae. Mandible subtriangular to triangular, short (note 1). Clypeus posteriorly broadly inserted between frontal lobes. Anterior clypeal margin usually without an isolated median seta (note 2). Inner margins of frontal lobes and antennal sockets relatively widely separated. Median portion of clypeus broad from side to side, flat to convex but not strongly elevated, not bicarinate (note 3); frequently with a median longitudinal carina. Metasternum simple, petiolar foramen short.

Notes

(1) Either mandible has 6 or fewer teeth (usually 5), or masticatory margin is subequal to or shorter than basal margin, or both of these. See comments below and also comment (ii) under solenopsidine tribe group characters.

(2) Anterior clypeal margin usually has either a pair of stout setae that straddle the midpoint, or an undifferentiated continuous row of setae. A few genera possess an isolated single median seta (*Cardiocondyla*, *Dilobocondyla*) and in some genera individual species, or specimens within a species, may exhibit a median seta (for example *C. paradoxa* among *Crematogaster* species, many individuals of *Stereomyrmex horni*).

(3) The lateral longitudinal edges of the broad median portion of the clypeus may be sharply marginate; this does not appear homologous with the raised and bicarinate

condition of the solenopsidine group. Median portion of clypeus may be sculptured with numerous parallel longitudinal carinae or rugae but a median carina, when present, is unpaired.

Comments

(i) Short mandibles with relatively few teeth are probably apomorphic in Myrmicinae and it is tacitly assumed that they have evolved independently several times from longer-mandibulate ancestral forms with a dentition somewhat similar to that prevalent among the myrmicine tribe group or the poneromorphs. Elsewhere in the subfamily short mandibles occur in the cephalotine tribe group and much of the solenopsidine tribe group, in Blepharidattini, Metaponini and Melissotarsini, and in some of the Myrmecini.

(ii) The state of the classification of this group of tribes is currently unsatisfactory. The monogeneric tribes merely isolate single genera with obvious autapomorphies that are lacking in Formicoxenini; e.g. the latter lacks the enlarged helcium and specialised gaster of Crematogastrini, lacks the hypertrophied ball-shaped tergite of abdominal segment IV of Ankylomyrmini, lacks the postpetiolar tergo-sternal fusion of Myrmicariini, and lacks the grotesque promesonotal specialisations of Meranoplini. As it stands, Formicoxenini, or the entire tribe group, may constitute a paraphyletic assemblage.

Tribe CREMATOGASTRINI

Diagnosis

With characters of formicoxenine tribe group. Mandible with 4 - 5 teeth. Frontal carinae and antennal scrobes absent. Frontal lobes narrow, toruli visible in full-face view. Propodeal lobes minute to absent. *Helcium much enlarged, its diameter in profile subequal to, or greater than, depth of postpetiole*. Tergite of abdominal segment IV (first gastral) strongly overlapping sternite on ventral surface of gaster. Gaster in profile flat dorsally, convex ventrally. Sting spatulate. Antenna with 9 - 11 segments, with a 2 - 4-segmented club (11 - 12 segments in male). [Synopsis, p. 237.]

Comments

Both genera of this tribe can elevate the petiole so that it lies against the propodeal declivity. The postpetiole is attached high on the gaster in *Recurvidris* and actually on the gaster's dorsal surface in *Crematogaster*, which enables the latter to reflex the gaster over the alitrunk.

Genus-rank taxa of Crematogastrini: *Crematogaster*, *Recurvidris* (tribal transfer).

Tribe ANKYLOMYRMINI trib. n.

Diagnosis

With characters of formicoxenine tribe group. Mandible with 5 teeth. Clypeus extended anteriorly as a long lobe that overhangs most of the mandible length; lobe elevated, in profile not tightly adherent to dorsal surfaces of mandibles. Eyes at extreme posterolateral corners of head in full-face view. Promesonotum strongly domed in profile. Metapleural gland orifice opens posterolaterally (note 1). Stridulitrum present on pretergite of abdominal segment IV. *Visible gaster consists only of the ball-shaped and vastly hypertrophied tergite of abdominal segment IV (first gastral)* (note 2); an anterior orifice in the ball allows the sting to project forward beneath the postpetiole. *Gaster with only one functional spiracle that opens to the outside, that of abdominal segment IV*. Antenna with 12 segments, with a 3 - 4-segmented club (male unknown). [Synopsis, p. 241.]

Notes

(1) This appears to be unique among the Myrmicinae and most probably represents a secondary adaptation.

(2) The sternite of abdominal segment IV is apparently represented by a narrow cuticular

flange that forms the ventral lip of the orifice in the ball-shaped tergite. If so the massive tergite and tiny sternite are fully fused. Tergosternal fusion of abdominal segment IV is otherwise seen in the poneromorphs and *Tatuidris* (Agroecomyrmecinae), but the way in which the fusion has happened is very different. Abdominal segments V - VII (gastral segments 2 - 4) of *Ankylomyrma* are reduced and telescoped within abdominal segment IV.

Comments

Abdominal segment III (postpetiole) appears to have tergosternal fusion (not assured as the dissected specimen is damaged). *Ankylomyrma* is one of those genera with a wealth of autapomorphies but little to tie it to other taxa. Isolation in its own tribe is therefore a matter of convenience, temporarily putting the problem of its genuine relationships to one side.

Genus-rank taxon of Ankylomyrmini: *Ankylomyrma* [type-genus].

Tribe LIOMYRMECINI trib. n.

Diagnosis

With characters of formicoxenine tribe group. Mandible with 4 teeth. *Eyes absent* (note 1). Median portion of clypeus sharply longitudinally margined on each side. *Metapleural gland bulla roughly tubular, large and extensive, reaching almost to the high, anteriorly located propodeal spiracle*. Mesotibia and metatibia each with two strong spurs (note 2). Tergite of abdominal segment IV (first gastral) weakly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 3). Stridulitrum present on pretergite of abdominal segment IV. Antenna with 11 segments, with a 3-segmented club (12 segments in male). [Synopsis, p. 241.]

Notes

(1) Other myrmicine genera where worker eyes are entirely absent include *Afroxydridis*, *Anillomyrma*, *Bondroitia*, *Carebara*; eyes are absent from some hypogaecic species of *Oligomyrmex*, *Solenopsis* and a few Basicerotini and Dacetini (list is not exhaustive). The eyeless condition in each case is independently evolved.

(2) This is the only myrmicomorph taxon to retain the formicid plesiomorphic spur-count.

(3) See comment (iii) under solenopsidine tribe group.

Comments

The median portion of the clypeus resembles that of the podomyrmines. The anterior clypeal flange sits tightly on top of the closed mandibles but there is no projecting lobe. The genus *Liomyrmex* is an isolated oddity, placed in its own tribe here for convenience, because there is no obvious other place to put it.

Genus-rank taxon of Liomyrmecini: *Liomyrmex* [type-genus].

Tribe MERANOPLINI

Diagnosis

With characters of formicoxenine tribe group. Mandible with 3 - 5 teeth (note 1). Broad frontal carinae and deep scobes present that extend above the eye. *Alitrunk short and compact; promesonotum forms a shield that overhangs the pleurae laterally and usually overhangs the propodeum posteriorly*. Tergite of abdominal segment IV (first gastral) does not broadly overlap sternite on ventral surface of gaster. Gastral shoulder absent (note 2); in ventral view tergite on each side of propodeum strongly projects anteriorly. Stridulitrum absent from pretergite of abdominal segment IV. *Antenna with 9 segments, with a 3-segmented club* (13 segments in male). [Synopsis, p. 242.]

Notes

(1) Usually 4 teeth, less commonly with 5; only extremely rarely with 3.

(2) See comment (iii) under solenopsidine tribe group.

Comments

(i) Petiole is sessile throughout the group but this character is duplicated extensively in Myrmicinae (for example in Cataulacini, Cephalotini, some Attini, some Stenammini, some Formicoxenini and some Myrmecini), as well as occurring in almost all other subfamilies. In *Meranoplus* males the petiole is differently shaped and resembles many other formicoxenine groups.

(ii) Meranoplini is a strongly isolated and very derived taxon whose members are morphologically very uniform. The number of unique morphological specialisations renders its relationships difficult to discern. There are some similarities with *Stereomyrmex*, currently regarded as a genus peripheral to the *Romblonella* group of formicoxenines, but these may be the result of convergence. The true relationship of *Meranoplus* to the formicoxenines remains to be discovered.

Genus-rank taxon of Meranoplini: *Meranoplus*.

Incertae sedis: **Parameranoplus*.

Tribe MYRMICARIINI

Diagnosis

With characters of formicoxenine tribe group. Mandible with 4 - 5 teeth. Eyes located well behind midlength of head. Frontal carinae absent to very weakly present; scrobes absent. Propodeal lobes absent or at most a narrow carina present. *Abdominal segment III (postpetiole) with complete tergosternal fusion* (note 1) (also in males). Stridulitrum absent from pretergite of abdominal segment IV. Pretergite and presternite of abdominal segment IV very tightly attached, subfused. Tergite of abdominal segment IV (first gastral) broadly overlapping sternite on ventral surface of gaster. Gastral shoulder present (note 2), the *postpetiole-gaster articulation shifted somewhat ventrally on the gaster* (note 3). Sting spatulate. *Antenna with 7 segments* (note 4), gradually incrassate or with a 3-segmented club (13 segments in male). [Synopsis, p. 242.]

Notes

(1) Fusion of this segment is also exhibited in workers of Cataulacini and Cephalotini.

(2) See comment (iii) under solenopsidine tribe group.

(3) The position of the postpetiole-gaster junction, coupled with the presence of a very long anterior peduncle on the petiole, allows the gaster to be carried flexed downward in life, almost at a right-angle to the alitrunk.

(4) Among myrmicines 7-segmented antennae also occur only in some basicerotines, obviously by parallelism.

Comments

(i) Most *Myrmecaria* species retain a conspicuous simple spur at the apex of each meso- and metatibia; spur lost in most or all species of the *M. arachnoidea* group.

(ii) In most of the genus the frontal lobes cover and conceal the toruli, but in the *M. arachnoidea* group the toruli are hypertrophied and to some extent replace the frontal lobes.

Genus-rank taxon of Myrmicariini: *Myrmecaria*.

Tribe FORMICOXENINI

[= Cardiocondylini, = Leptothoracini, = Ochetomyrmecini **syn. n.**, = Podomyrmini, = Solenomyrmini **syn. n.**, = Stereomyrmecini].

Diagnosis

With characters of formicoxenine tribe group. Mandible with 0 - 7 teeth (note 1). Clypeus posteriorly broadly inserted between frontal lobes. Toruli usually concealed by frontal

lobes in full-face view (note 2). Outer margins of frontal lobes not pinched-in posteriorly. Median portion of clypeus broad from side to side, flat to convex but not strongly elevated, not medially bicarinate; frequently with an unpaired median longitudinal carina. Propodeal lobes present, usually rounded, less commonly bluntly low-triangular (note 3). Mesotibia and metatibia without a spur or with a single simple spur. Stridulitrum present on pretergite of abdominal segment IV. Tergite of abdominal segment IV (first gastral) usually broadly overlapping sternite on ventral surface of gaster. Gastral shoulder usually present, absent in some (note 4). Sting simple, usually acute and functional. Antenna with 9 - 12 segments, gradually incrassate or with a 3- or 4-segmented club (8 - 13 segments in male). Otherwise without the apomorphic characters of other tribes within the formicoxenine group (see comments). [Synopsis, p. 243.]

Notes

(1) Total dental count usually 5, less commonly 6; only extremely rarely with 7 or fewer than 5 (the last generally in parasitic forms, for example mandible edentate in the dulotic *Harpagoxenus*, with only 2 teeth in some socially parasitic *Myrmoxenus*).

(2) Toruli are partially visible in a few species of *Temnothorax* and in socially parasitic/dulotic *Myrmoxenus* and *Protomognathus*. Toruli are reduced or eroded in some *Podomyrma* species, but here the greatest width of the exposed torulus is anterior to the maximum width across the frontal lobes. This is in contrast to the universal situation in the Pheidolini and Solenopsidini where the maximum expansion of the torulus is posterior to the point of maximum width of the frontal lobes.

(3) Propodeal lobes are elongate and acutely triangular only in the monotypic *Poecilomyrma*.

(4) See comment (iii) under solenopsidine tribe group.

Comments

(i) See comment (ii) under formicoxenine tribe group.

(ii) Genus groups within Formicoxenini

(ii.1) *Leptothorax* genus group

In profile the true anterior margin of the median portion of the clypeus is below and behind an apparent anterior margin that is formed by a projection of the clypeal outline; this projection is elevated (slightly to considerably) away from the dorsal surface of the closed mandible. A curved transverse crest is present on the stipes of the maxilla; the crest arises from the mesial border of the stipes near its midlength. Median clypeal carina is absent. First gastral sternite is shouldered basally; more posteriorly the sternite is broadly overlapped by the tergite. In alate males the antenna is filiform (gradually incrassate in some ergatoid males of *Cardiocondyla* and *Formicoxenus*).

(ii.2) *Temnothorax* genus group

Median portion of clypeus in profile as above (except in a couple of species of the *T. rottenbergi* species group, which approximate the condition seen in the *Podomyrma* group). No transverse crest on the stipes of the maxilla. Median clypeal carina is usually present (only extremely rarely missing). First gastral sternite as above. Males with antenna gradually incrassate (the monotypic *Protomognathus* only) or distinctly clavate, the club of 3, or more usually 4, segments.

The genus *Ochetomyrmex* is tentatively associated with this group. Its male appears to lack clavate antennae and the PF of 3,2 is low, repeated only in a *Myrmoxenus* species. Of the two *Ochetomyrmex* species one has, and one lacks, a median clypeal carina but in general the shape and structure of the alitrunk and waist segments are reminiscent of *Chalepoxenus*.

(ii.3) *Nesomyrmex* genus group

Anterior margin of the median portion of the clypeus is extended forward as a rounded or rectangular lobe that fits tightly over the closed mandibles and overlaps and conceals the basal 1 - 2 teeth (basal tooth may be visible if the prominent clypeal lobe has a median impression in its margin). No transverse crest on the stipes of the maxilla. First gastral sternite as in *Leptothorax* group. Petiole frequently (but not universally) equipped with tubercles, teeth or spines. Males with antenna filiform.

(ii.4) *Podomyrma* genus group

Median portion of clypeus with its anterior margin fitting tightly against the bases of the closed mandibles; without a prominent lobe that overlaps the mandibles and without an elevated secondary anterior margin. Median portion of clypeus is usually depressed and with an oddly flat appearance (distinctly convex in some *Podomyrma* (those species formerly in genus *Dacryon*), which approximate the clypeal form of the *Romblonella* group). A curved transverse crest present on the stipes of the maxilla; crest arises from the mesial border of the stipes near its midlength. Hind femora markedly incrassate. The petiole is never of the "ordinary nodiform" shape; it tends to be cylindrical, claviform, or armed with teeth or spines, or a combination of these. First gastral sternite with variably developed basal shoulder and variable degree of tergosternal overlap. Males with antenna filiform.

(ii.5) *Romblonella* genus group

Median portion of clypeus as *Podomyrma* group but without a depressed and oddly flat appearance. A curved transverse crest is present on the stipes of the maxilla in all but *Rotastruma*. Propodeal spiracle low on the side and relatively close to the apex of the metapleural gland bulla (higher on side and more anterior, in usual formicoxenine position, in *Vombisidris*). Hind femora not incrassate. First gastral sternite without a basal shoulder; more posteriorly the sternite is only narrowly overlapped by the tergite. In alate males the antenna is filiform.

The genus *Stereomyrmex* is treated here as peripheral to the *Romblonella* genus group. It has a short, compact alitrunk and subsessile petiole; its propodeal spiracle abuts the margin of the metapleural gland bulla and the stipes lacks a transverse crest. In a series of about 40 workers and one (ergatoid) queen of *S. horni* almost half had an isolated median clypeal seta, the others did not. This seems natural variation and not the result of damage.

(iii) Changes or adjustments in genus-group names in Formicoxenini include: revived status of *Gauromyrmex* [Appendix 1.6]; *Temnothorax* and *Nesomyrmex* revived from synonymy, and distribution of former subgenera/synonyms of *Leptothorax sensu lato* [Appendix 1.7]; *Ireneopone* relegated to synonymy under *Nesomyrmex* [Appendix 1.8]; *Willowsiella* relegated to synonymy under *Stereomyrmex* [Appendix 1.10].

Genus-rank taxa of Formicoxenini:

Leptothorax genus group: *Cardiocondyla*, *Formicoxenus*, *Harpagoxenus*, *Leptothorax*.

Temnothorax genus group: *Chalepoxenus*, *Myrmoxenus*, *Protomognathus*, *Temnothorax* stat. n.

Peripheral to *Temnothorax* group: *Ochetomyrmex* (tribal transfer).

Nesomyrmex genus group: *Atopomyrmex*, *Gauromyrmex* (stat. rev., tribal transfer), *Nesomyrmex* (stat. rev.), *Xenomyrmex* (tribal transfer).

Podomyrma genus group: *Dilobocondyla*, *Peronomyrmex*, *Podomyrma*, *Terataner*.

Romblonella genus group: *Poecilomyrma*, *Romblonella*, *Rotastruma*, *Vombisidris*.

Peripheral to *Romblonella* group: *Stereomyrmex*.

Incertae sedis: **Stigmomyrmex*, *Tricytarus* (unrecognisable taxon).

Tribes not included in any group

Tribes Melissotarsini, Metaponini, Myrmecinini, Stegomyrmecini.

Tribe STEGOMYRMECINI

Diagnosis

With characters of Myrmicinae. Mandible triangular, long (note 1), stoutly constructed; total dental count 12 - 15. Anterior clypeal margin without an isolated median seta. Median portion of clypeus narrow, flat and vertical, not bicarinate, quite narrowly inserted between the frontal lobes. Inner margins of frontal lobes and antennal sockets relatively closely approximated. Frontal lobes enormously expanded laterally and project far out over the mandibles anteriorly. Very broad frontal carinae and very deep antennal scrobes present (above the eye). Dorsal alitrunk with promesonotal suture-line. Promesonotum domed in profile; mesonotum elongate and its posterior portion sloped. Propodeal spiracle low on

side. Metatibial spurs absent. Petiole long, low nodiform, with an anteroventral process. Tergite of abdominal segment IV (first gastral) not broadly overlapping sternite on ventral surface of gaster. Gastral shoulder absent (note 2). Antenna with 12 segments, with a 3-segmented club (13 segments in male). [Synopsis, p. 254.]

Notes

- (1) See comment (ii) under solenopsidine tribe group.
- (2) See comment (iii) under solenopsidine tribe group.

Comments

This is one of the truly enigmatic myrmecines. In the past it has been associated with the attines and basicerotines, but does not really belong with these groups. The structure of the promesonotum suggests that relationship with the pheidolines may be a possibility but as yet there is no undisputed evidence for this.

Genus-rank taxon of Stegomyrmecini: *Stegomyrmex*.

Tribe MYRMECININI

[= Archaeomyrmecini].

Diagnosis

With characters of Myrmicinae. *Anterior (free) margin of labrum angled abruptly downward preapically so that margin appears very thick in anterior view. Labrum mediodorsally, at line of downcurvature (apparent anterior margin), with a transverse cuticular raised ridge, or a series of 2 - 3 small teeth, or both of these.* Antennal sockets relatively close to anterior margin of head (note 1). Median portion of clypeus broad, broadly inserted between antennal sockets, the latter relatively widely separated. Lateral portion of clypeus usually raised into a ridge in front of toruli. Stridulitrum present on pretergite of abdominal segment IV. Antenna with 9, 11 or 12 segments, with a 3-segmented club (12 - 13 segments in male). [Synopsis, p. 255.]

Notes

- (1) Except in major workers of *Acanthomyrmex*.

Comments

(i) In *Acanthomyrmex*, *Perissomyrmex* and *Pristomyrmex* the labrum when fully retracted covers most to all of the labio-maxillary complex. Elsewhere in Myrmicinae a similar development is seen only in the dacetine genera *Colobostruma* and *Mesostruma*.

(ii) Except for *Myrmecina* all myrmecinines have the frontal lobes extremely reduced or absent, so that the antennal sockets and toruli are largely or entirely exposed. Within the tribe all genera have a pedunculate petiole except for *Myrmecina*, in which it is sessile.

Genera-rank taxa of Myrmecinini: *Acanthomyrmex*, *Myrmecina*, *Perissomyrmex*, *Pristomyrmex*.

Incertae sedis: **Enneamerus*, **Stiphromyrmex*.

Tribe METAPONINI

Diagnosis

With characters of Myrmicinae. Mandible short, 4 - 5 dentate, with subparallel apical and basal borders. Anterior clypeal margin without an isolated median seta. Median portion of clypeus broad, very broadly inserted between antennal sockets, the latter relatively widely separated. Frontal carinae and antennal scrobes present; frontal carinae suddenly broadening behind the frontal lobes. Ocelli frequently present in worker. Propodeal spiracle high on side, at about midlength. *Procoxa smaller than mesocoxa and metacoxa* (note 1). *Metafemur extremely anteroposteriorly compressed, extremely deep in anterior view. Apex of mesotibia, metatibia and basitarsi of all legs with traction spines* (note 2). A

single pectinate spur present on each mesotibia and metatibia. Alitrunk long and low, flat-topped in profile. *Presclerites of abdominal segment IV (first gastral) very large; articulation of abdominal segments III and IV very broad* (also in male). Stridulitrum present on pretergite of abdominal segment IV. Antenna with 11 segments, with a 3-segmented club (12 segments in male). [Synopsis, p. 257.]

Notes

(1) Reduction in size of procoxa is also found in *Melissotarsus*; this is assumed to have occurred convergently as procoxae are larger in *Rhopalomastix*, the second and somewhat less specialised melissotarsine genus.

(2) Traction spines occur on the middle and hind basitarsi in *Melissotarsus*, but are absent from the mesotibia and metatibia.

Comments

The wide articulation that joins abdominal segment III to IV is being treated as if plesiomorphic here, but it may represent a secondary broadening of the junction.

Genus-rank taxon of Metaponini: *Metapone*.

Tribe MELISSOTARSINI

Diagnosis

With characters of Myrmicinae. Mandible short, 3 - 4 dentate. *Median portion of clypeus does not project back between antennal sockets* (note 1). Antennal sockets and frontal lobes extremely closely approximated, the latter separated mediodorsally only by a narrow groove. Frontal carinae and antennal scrobes absent. Antennae very short. Mesotibia and metatibia without spurs. *Basitarsi of middle and hind legs short and stout*. Alitrunk short and compact. *Propodeal lobes absent* (note 2). *Sternite of abdominal segment III (postpetiole) reduced, very short*. *Abdominal segment III broadly articulated to segment IV (first gastral); articulation high on anterior face of segment IV*; stridulitrum absent. Male mandible either reduced or vestigial and represented only by small non-functional lobes. Antenna with 6 or 10 segments, with a 2-segmented club (11 - 12 segments in male). [Synopsis, p. 257.]

Notes

(1) The condition of the melissotarsine clypeus is unique in Myrmicinae and is regarded as apomorphic by reduction. The clypeus appears to have been "squeezed out" from between the antennal sockets by the extreme narrowing of the distance between them, the process that also brought the frontal lobes into near-contact mediodorsally.

(2) The absence of propodeal lobes among the myrmicomorphs is restricted to this tribe, to *Crematogaster* and to some species of *Myrmicaria*. Absence in each case is regarded as an autapomorphy by secondary reduction rather than a plesiomorphic absence.

Comments

(i) Of the two genera in this tribe *Rhopalomastix* is more generalised morphologically than *Melissotarsus*. For example *Rhopalomastix* has 10 antennomeres, has a large lateral pronotum, has the procoxa slightly larger than the mesocoxa and metacoxa, lacks a circlet of traction spines on the meso- and metabasitarsi, has presclerites present on abdominal segment IV (also in male), and has a powerful sting. By contrast *Melissotarsus* has only 6 antennomeres, has the lateral pronotum very reduced, has the procoxa distinctly smaller than the mesocoxa and metacoxa, has the meso- and metabasitarsi equipped with a circlet of short traction spines, lacks presclerites on abdominal segment IV (also in male), and has a very reduced sting.

(ii) Adult workers of *Melissotarsus emeryi* produce silk. Other species in the genus probably also do as their morphology is very similar; whether *Rhopalomastix* workers can produce silk remains unknown.

(iii) Palp formula is 1,1 or 0,1 (see Appendix 2). A PF 6,4 in queens, recorded by Gotwald

(1969), has not been confirmed; queens examined have the same PF as workers.

Genus-rank taxa of Melissotarsini: *Melissotarsus*, *Rhopalomastix*.

Incertae sedis in Myrmicinae: **Attopsis*, **Cephalomyrmex*, **Electromyrmex*, **Eocenidris*, **Eoformica*, **Eomyrmex*, **Miosolenopsis*, **Zhangidris* **nom. n.** (for **Heteromyrmex* Zhang, junior homonym).

Collective group name in Myrmicinae: **Myrmicites*.

The extinct subfamilies of Formicidae

Subfamilies **Armaniinae*, **Sphecomyrminae*, **Brownimeciinae*, **Formiciinae*.

SUBFAMILY *ARMANIINAE

Diagnosis

Mandible bidentate. Head prognathous. Scape very short, funiculus long and flexuous. Venation ant-like (note 1). Waist of one poorly separated segment (petiole), posteriorly very broadly articulated with abdominal segment III (first gastral). No constriction present between abdominal segments III and IV (i.e. segment IV without differentiated presclerites) (note 2). Sting present. [Cretaceous (Albian-Turonian); only winged females and males known.] [Synopsis, p. 259.]

Notes

(1) Cross-veins 3rs-m and 2m-cu are absent from the forewing. Basically the **armaniine* forewing has exactly the same pattern of veins and cells as do generalised extant species of Ponerini, Platythyreini and Myrmeciini, and some species of **Sphecomyrmini*.

(2) Discussions of fossil taxa, and sometimes of extant forms, often refer to the presence or absence of a constriction between abdominal segments III and IV. When a constriction is present it superficially appears to be between the two segments, but in fact is between the presclerites and postsclerites of abdominal segment IV and happens to be visible because the posterior margin of segment III overlaps the presclerites of IV, but not the postsclerites or the girdling constriction that separates them. Thus, "constriction present" is usually another way of saying that abdominal segment IV has strongly differentiated presclerites.

Comments

(i) Characters used in the diagnosis are entirely plesiomorphic with respect to all other subfamilies of Formicidae; for synopsis of proposed plesiomorphies see Appendix 3 (p. 288).

(ii) Grimaldi, Agosti & Carpenter (1997) excluded **armaniines* from Formicidae primarily because no metapleural gland is visible, but considering that all **armaniine* fossils are merely impressions in rock this is hardly surprising. While it cannot conclusively be proved by individual characters whether the **armaniines* should or should not be included in Formicidae, their descriptions and illustrations are of decidedly ant-like entities. Because the females combine prognathous heads and ant-like venations with the presence of a differentiated petiolar segment and the possibility of mass nuptial flights it seems reasonable to regard them as a subfamily of admittedly very basal ants, perhaps the (currently paraphyletic) sister-group of all other formicids.

(iii) The presence or absence of a trochantellus in this group remains equivocal; it is absent in all extant Formicidae (see comment (ii) under **Sphecomyrminae*).

Tribe-rank taxon of **Armaniinae*: **Armaniini*.

Tribe *ARMANIINI

Diagnosis: as subfamily.

Genus-rank taxa of **Armaniini*: **Archaeopone*, **Armania*, **Dolichomyrma*, **Khetania*,

**Poneropterus*, **Pseudarmania*.

SUBFAMILY **SPHECOMYRMINAE*

Diagnosis

Scape short (ca 0.25 times length of funiculus); funiculus long and flexuous. Eyes behind midlength of head. Clypeus posteriorly not inserted between antennal sockets. Metapleural gland present, its orifice round and opening laterally; orifice not at all concealed by cuticular flaps or flanges. Mesoscutum and scutellum present and separated on dorsal alitrunk. Propodeal lobes absent. Mesotibia and metatibia each with two spurs. Pretarsal claws each with a preapical tooth. Waist of one low nodiform segment (petiole) that is narrowly articulated to abdominal segment III (first gastral). Helcium arises low on anterior face of abdominal segment III (note 1). No constriction between abdominal segments III and IV (i.e. segment IV without differentiated presclerites). Sting present. Alates with forewing vein Cu1 absent; presence of jugal lobe on hindwing of male equivocal (note 2). [Cretaceous (Albian-Campanian).] [Synopsis, p. 260.]

Notes

(1) May be apomorphic for the subfamily but the helcium is also low in the Cretaceous (Turonian) formicine **Kyromyrma*. Appendix 3 assumes that plesiomorphically the helcium is set at about the midheight of segment III.

(2) Dlussky's (1975, 1987) drawings of male **sphecomyrmines* appear to show the presence of a jugal lobe. However, Grimaldi *et al.* (1997) indicate in their data matrix that presence or absence of the lobe is an unknown state; no jugal lobes are shown in their illustrations.

Comments

(i) Characters used in the diagnosis of this subfamily are generally plesiomorphic with respect to all other Formicidae subfamilies except **Armaniinae*, in which the petiole is broad and broadly attached to abdominal segment III.

(ii) According to Grimaldi, Agosti & Carpenter (1997) a genuine trochantellus can be discerned in some New Jersey amber specimens of this group.

Tribe-rank taxa of **Sphecomyrminae*: **Haidomyrmecini*, **Sphecomyrmini*.

Tribe **SPHECOMYRMINI*

Diagnosis

Mandible short and bidentate. Ocelli present. Second funicular segment elongate. Petiole subsessile. Anterior face of abdominal segment III vertical. [Cretaceous (Turonian-Campanian).] [Synopsis, p. 261.]

Genus-rank taxa of **Sphecomyrmini*: **Baikuris*, **Cretomyrma*, **Dlusskyidris*, **Sphecomyrma*.

Tribe **HAIDOMYRMECINI* trib. n.

Diagnosis

Mandible long and slender, L-shaped in profile. Clypeus bizarrely longitudinally concave. Ocelli absent. Third funicular segment elongate. Petiole short-pedunculate. [Cretaceous (Albian).] [Synopsis, p. 261.]

Genus-rank taxon of **Haidomyrmecini*: **Haidomyrmex*.

SUBFAMILY *BROWNIMECIINAE subfam. n.

Diagnosis

Mandible falcate and edentate (note 1), acute apically and crossing over (rather than overlapping) at full closure. Scape relatively long (ca 0.5 times length of funiculus) (note 2); funiculus not long and flexuous, clavate apically (note 3). Ocelli absent. Genal tooth present (note 4). Eyes behind midlength of head. Metapleural gland present. Propodeal lobes absent. Metatibia with a pectinate spur and apparently also with a simple anterior spur. Pretarsal claws each with a preapical tooth. Waist of a single segment (petiole), with a short anterior peduncle and broadly articulated to abdominal segment III (first gastral). Helcium attached high on anterior face of abdominal segment III. A constriction present between abdominal segments III and IV (implying development of presclerites on abdominal segment IV). Abdominal segments III and IV without tergosternal fusion. Sting present. [Cretaceous (Turonian).] [Synopsis, p. 262.]

Notes

(1) In workers falcate, edentate mandibles otherwise occur only in the recent genera *Polyergus* (Formicinae) and *Strongylognathus* (Myrmicinae), both of which are dulotic, and in the largest workers of *Cataglyphis bombycinus* (Formicinae). Each instance represents an obvious independent development.

(2) The scape here is much more ant-proportioned than in *armaniines and *sphecomyrmines.

(3) Clavate funiculi are extensively developed and occur in most subfamilies, having evolved independently on many occasions (see Appendix 2), but **Brownimecia* is the only Cretaceous ant known in which the feature occurs.

(4) Genal teeth are otherwise known only in the Amblyoponini where they occur in all *Mystrium* species, some *Prionopelta* and many *Amblyopone*. Coupled with the bizarre mandibles and apparently high attachment of the helcium of **Brownimecia* this may indicate some sort of relationship with the amblyoponines. However, the characteristic petiole and abdominal segment III morphology of the amblyoponines is not duplicated in **Brownimecia* and the clypeal margin lacks dentiform setae, which prevents its inclusion in Amblyoponini.

Comments

Its describers placed **Brownimecia* within Ponerinae, in the old sense, because of its gastral constriction. However, the genus does not sit happily within any subfamily recognised here. It may belong, speculatively, in a basal group that is sister to the poneromorphs, or perhaps to the poneromorphs and leptanillomorphs together.

Tribe-rank taxon of *Brownimeciinae: *Brownimeciini.

Tribe *BROWNIMECIINI

Diagnosis: as subfamily.

Genus-rank taxon of *Brownimeciini: **Brownimecia* [type-genus].

SUBFAMILY *FORMICIINAE

Diagnosis

Huge ants, forewing length in queens ca 45 - 60 mm. (ca 20 - 30 mm. in males). Antenna of queen very short (of male filiform). Propodeal spiracle elongate, slit-shaped. Waist of a single segment (petiole), an erect thin elliptical scale. *Gastral spiracles large and slit-shaped (ca 6 times longer than broad)* (note 1). No constriction present between abdominal segments III (first gastral) and IV (i.e. segment IV without differentiated presclerites). Sting present but weak, short and reduced. *Forewing venation with two small submarginal cells and the pterostigma distinctly crowded into the midwing area* (note 2). Cross-vein 1_{rs} of forewing present and complete (note 3). [Middle Eocene; only winged queens and

males known.] [Synopsis, p. 262.]

Notes

(1) Dichthadiiform queens and males of the dorylomorph subfamilies Aenictinae, Dorylinae and Ecitoninae have elliptical to slit-shaped gastral spiracles. Those of *Dorylus* queens approach the proportions described for **Formicium* but are certainly thus by convergence.

(2) Crowding of the veins is well illustrated in Brown & Nutting (1950), Lutz (1986, 1990) and Grimaldi, Agosti & Carpenter (1997).

(3) In all alate ants in which a pterostigma occurs the only r-rs cross-vein usually present is 2r-rs, which arises distally from the pterostigma. Very rarely a more proximal 1r-rs vein-stub (extremely rarely a complete 1r-rs vein), that arises from Rs and is directed towards the proximal base of the pterostigma, is retained [e.g. some **armaniines* and **sphecomyrmines*, and some extant species of *Myrmecia* (Myrmeciinae), *Tetraponera* (Pseudomyrmecinae), *Cheliomyrmex* (Ecitoninae), *Centromyrmex*, *Leptogenys*, *Pachycondyla*, *Platythyrea* (Ponerinae) and *Rhytidoponera* (Ectatomminae)]. In **Formicium mirabile* both 1r-rs and 2r-rs are present as complete veins, but in all other **Formicium* species the distal 2r-rs appears to have dropped out, so that only the proximal 1r-rs is present. There is a converse possibility: that 1r-rs has been lost and 2r-rs has subsequently shifted to a more proximal position, the position formerly occupied by 1r-rs, but this seems very unlikely.

Comments

The general structure of **Formiciinae*, and particularly the morphology of the petiole and gaster, suggests that it may be the sister-group of the formicomorph group of subfamilies.

Tribe-rank taxon of **Formiciinae*: **Formiciini*.

Tribe ***FORMICIINI**

Diagnosis: as subfamily.

Genus-rank taxon of **Formiciini*: **Formicium*.

Taxa *incertae sedis* and exclusions from Formicidae

Subfamily *incertae sedis* in Formicidae

SUBFAMILY ***PALEOSMINTHURINAE**

Tribe-rank taxon of **Paleosminthurinae*: **Paleosminthurini*.

Genus-rank taxon of **Paleosminthurini*: **Paleosminthurus*.

Comments

Paleosminthurus* was originally described, from a single specimen, as the sole member of an extinct Miocene family (Paleosminthuridae*) in the order Collembola. The fossil is incomplete and consists of the head (minus antennae) and alitrunk (minus most legs) of a wingless but apparently male ant. The partial fossil appears formicine or dolichoderine but cannot accurately be referred to any subfamily. Therefore, merely because a family-group name was proposed when this taxon was first described, it is left as a subfamily *incertae sedis* in Formicidae. [Synopsis, p. 263.]

Genera *incertae sedis* in Formicidae: **Calyptites*, **Cariridris*, *Condylodon*, *Hypochira*, *Noonilla*, **Syntaphus*. [Synopsis, p. 263.]

Genera excluded from Formicidae: **Cretacoformica*, *Formila*, **Myrmicium*, **Palaeomyrmex*, **Promyrmicium*, *Scyphodon*. [Synopsis, p. 264.]

Genus-group *nomina nuda* in Formicidae: *Ancylognathus*, *Hypopheidole*, *Leptoxenus*, *Myrmegis*, *Pergandea*, *Salticomorpha*, *Titusia*. [Synopsis, p. 265.]

Family-group names that are taxonomically unavailable: Alloformicinae, Eucamponotinae, Eudolichoderinae, Eudorylinae, Euformicinae, Eumyrmicinae, Exeuponerinae, Heteroformicinae, Mesocamponotinae, Metadorylinae, Mycetomyrmicinae, Neoattini, Paleoattini, Paleoponerinae, Procamponotinae, Prodolichoderinae, Prodorylinae, Promyrmicinae, Proponerinae, Rhagiomyrmicinae, Taraxoponerinae. [Synopsis, p. 265.]

SYNOPSIS OF THE CLASSIFICATION

1. An entry followed by a name in square brackets indicates the form of a taxon as it appears in the particular publication. It usually shows an older form of the name that is at variance with modern usage but on occasion a misspelling may be indicated.
2. Entries not followed by names in square brackets mean that each publication has the name in its correct form, matching the form of the name that appears as the initial word of each section in the taxonomic history.
3. The phrase "all subsequent authors" indicates that a consensus had been reached which remained generally or entirely unchallenged in later publications. The unchallenged status may extend from the last entry to the present day, or may extend over a period of time until a newer opinion was superimposed.
4. Names that are currently considered to be junior synonyms occur in their original orthography; they are not corrected to modern formations.
5. Taxa that are known only from the fossil record are prefixed by the star-sign "*".
6. The entry for each taxon is followed by a bibliography of key references, in date order, that have contributed to our current view of the taxon.

FAMILY FORMICIDAE

Family FORMICIDAE

Formicariae Latreille, 1809: 124. Type-genus: *Formica*.

Taxonomic history

Formicidae as family: Latreille, 1809: 124 [Formicariae]; Leach, 1815: 147 [Formicarides]; Stephens, 1829: 356 [first spelling as Formicidae]; Haliday, 1836: 331; Westwood, 1839: 217; Swainson & Shuckard, 1840: 171; Nylander, 1846: 877; Foerster, 1850a: 1 [Formicariae]; Mayr, 1855: 275 [Formicina]; Smith, F. 1857: 52; Smith, F. 1858b: 1; Mayr, 1861: 21; Mayr, 1865: 6; Heer, 1867: 6 [Formicaria]; Forel, 1870: 307 [Formicinae]; Forel, 1874: 19 [Formicariae]; Dalla Torre, 1893: 1; Forel, 1899: 1; Ruzsky, 1902b: 5 [Formicarii]; Bingham, 1903: 1; Ruzsky, 1905: 91 [Formicariae or Formicidae]; Ashmead, 1905b: 384; all subsequent authors. [*Taxonomy*, p. 15.]

Subfamilies (extant): Aenictinae, Aenictogitoninae, Agroecomymecinae, Amblyoponinae, Aneuretinae, Apomyrminae, Cerapachyinae, Dolichoderinae, Dorylinae, Ecitoninae, Ectatomminae, Formicinae, Heteroponerinae, Leptanillinae, Leptanilloidinae, Myrmeciinae, Myrmicinae, Paraponerinae, Ponerinae, Proceratiinae, Pseudomyrmecinae.

Subfamilies (extinct): *Armaniinae, *Brownimeciinae, *Formiciinae, *Sphecomyrminae.

Subfamily *incertae sedis* in Formicidae: *Paleosminthurinae.

Genera (extant) *incertae sedis* in Formicidae: *Condylodon*, *Hypochira*, *Noonilla*.

Genera (extinct) *incertae sedis* in Formicidae: **Calyptites*, **Caridris*, **Paleosminthurus*.

Genera (extant) excluded from Formicidae: *Formila*, *Scyphodon*.

Genera (extinct) excluded from Formicidae: **Cretacoformica*, **Myrmicium*, **Palaeomyrmex*, **Promyrmicium*.

Genus-group *nomina nuda* in Formicidae: *Ancylognathus*, *Hypopheidole*, *Leptoxenus*, *Myrmegis*, *Pergandea*, *Salticomorpha*, *Titusia*.

Family references, world

WORLD CATALOGUES: Roger, 1863b: 1 (Formicidae); Mayr, 1863: 394 (Formicidae); Dalla Torre, 1893: 1 (Formicidae); Emery, 1910b: 3 (Dorylinae); Emery, 1911b: 2 (Ponerinae); Emery, 1913a: 2 (Dolichoderinae); Emery, 1921b: 3, Emery, 1922c: 95 and Emery, 1924: 207 (Myrmicinae); Emery, 1925b: 2 (Formicinae); Shattuck, 1994: 1 (Aneuretinae and Dolichoderinae); Bolton, 1995b: 7 (Formicidae).

WORLD SYNOPTIC CLASSIFICATIONS: Forel, 1893a: 161 (Formicidae); Emery, 1895e: 764 (Formicidae); Emery, 1896b: 173 (Formicidae); Ashmead, 1905b: 381 (Formicidae); Wheeler, W.M. 1910d: 134 (Formicidae); Emery, 1910b: 3 (Dorylinae); Emery, 1911b: 2 (Ponerinae); Emery, 1913a: 2 (Dolichoderinae); Forel, 1917: 235 (Formicidae); Emery, 1921b: 3 and Emery, 1922c: 95 (Myrmicinae); Wheeler, W.M. 1922a: 631 (Formicidae); Emery, 1924: 207 (Myrmicinae); Emery, 1925b: 2 (Formicinae);

Brown, 1973b: 165, 178 (Formicidae); Snelling, 1981: 387 (Formicidae); Wheeler, G.C. & Wheeler, J. 1985: 256 (Formicidae); Dlussky & Fedoseeva, 1988: 77 (Formicidae); Hölldobler & Wilson, 1990: 9 (Formicidae); Bolton, 1994: 12 (Formicidae).

WORLD IDENTIFICATION KEYS: Emery, 1896b: 173 (Formicidae subfamilies and genera); Emery, 1910b: 4 (Dorylinae tribes and genera); Emery, 1911b: 4 (Ponerinae tribes and genera); Emery, 1913a: 6 (Dolichoderinae tribes and genera); Escherich, 1917: 2 (Formicidae subfamilies); Emery, 1921b: 9, 12, 16 (Myrmicinae tribes and genera); Wheeler, W.M. 1922a: 631 (Formicidae subfamilies, tribes and genera); Emery, 1925b: 7 (Formicinae tribes and genera); Clark, 1951: 14 (Formicidae subfamilies); Wheeler, G.C. & Wheeler, J. 1972: 42 (Formicidae subfamilies); Snelling, 1981: 386 (Formicidae subfamilies); Hölldobler & Wilson, 1990: 33 (Formicidae subfamilies and genera); Bolton, 1990c: 1361 (Formicidae subfamilies); Shattuck, 1992c: 20 (Dolichoderinae genera); Ward, 1990: 464 (Pseudomyrmecinae genera); Brothers & Finnamore, 1993: 218 (Formicidae subfamilies); Bolton, 1994: 7 (Formicidae subfamilies and genera).

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PHYLOGENY OF FORMICIDAE: Wheeler, W.M. 1920: 52; Emery, 1920c: 370; Donisthorpe, 1922: xlvii; Wheeler, W.M. 1923c: 156; Wheeler, W.M. 1928b: 124; Stitz, 1936: 211; Morley, 1938: 190; Brown & Nutting, 1950: 113; Bernard, 1951: 1041; Brown, 1954b: 30; Wilson, Carpenter & Brown, 1967: 12; Taylor, 1978a: 982; Rasnitsyn, 1980: 45-46 (foldout page); Lutz, 1986: 213; Dlussky & Fedoseeva, 1988: 137; Baroni Urbani, 1989: 137; Hölldobler & Wilson, 1990: 26; Hashimoto, 1991a: 125; Hashimoto, 1991b: 289; Baroni Urbani, Bolton & Ward, 1992: 301; Shattuck, 1992b: 203; Brothers & Carpenter, 1993: 227; Ward, 1994: 173; Grimaldi, Agosti & Carpenter, 1997: 25; Perrault, 1999: 125; Brothers, 1999: 233; Grimaldi & Agosti, 2000: 13680.

PALAEONTOLOGY OF FORMICIDAE: Scudder, 1891: 682 (fossil taxa catalogue); Handlirsch, 1907: 859 (fossil taxa catalogue); Burnham, 1979: 108 (fossils in amber checklist); Keilbach, 1982: 272 (fossils in amber checklist); Spahr, 1987: 41 (fossils in amber checklist); Carpenter, 1992: 490 (fossil genera review); Bolton, 1995b: 4 (fossil taxa checklist, in catalogue); Grimaldi, Agosti & Carpenter, 1997: 1 (Cretaceous genera in amber review).

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ORIENTAL AND MALESIAN: Chapman & Capco, 1951: 9.

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The formicomorph subfamilies [*Taxonomy*, p. 16]

SUBFAMILY ANEURETINAE

Subfamily ANEURETINAE

Aneuretini Emery, 1913a: 6. Type-genus: *Aneuretus*.

Taxonomic history

Aneuretinae as junior synonym of Dolichoderinae: Baroni Urbani, 1989: 147.

Aneuretinae as subfamily of Formicidae: Clark, 1951: 16 (footnote); Wilson, Eisner, Wheeler & Wheeler, 1956: 93; Wheeler, G.C. & Wheeler, J. 1972: 40; Snelling, 1981: 400; Dlussky & Fedoseeva, 1988: 78; Bolton, 1990c: 1361; Hölldobler & Wilson, 1990: 16; Shattuck, 1992b: 201; Baroni Urbani, Bolton & Ward, 1992: 315; Shattuck, 1994: 1; Bolton, 1994: 15; Bolton, 1995b: 9. [*Taxonomy*, p. 18.]

Tribe: Aneuretini.

Tribe ANEURETINI

Aneuretini Emery, 1913a: 6. Type-genus: *Aneuretus*.

Taxonomic history

Aneuretini as tribe of Dolichoderinae: Emery, 1913a: 6; Wheeler, W.M. 1915e: 71; Forel, 1917: 247; Wheeler, W.M. 1922a: 687; Carpenter, 1930: 37; Chapman & Capco, 1951: 181; Brown, 1954b: 29 (in text).

Aneuretini as tribe of Aneuretinae: Wilson, Eisner, Wheeler & Wheeler, 1956: 93 (footnote); Hölldobler & Wilson, 1990: 16; Bolton, 1994: 15.

Genus (extant): *Aneuretus*.

Genera (extinct): **Aneuretellus*, **Mianeuretus*, **Paraneuretus*, **Protaneuretus*.

Genus (extinct) *incertae sedis* in Aneuretinae: **Burmomyrma*.

Subfamily, tribe and genus *Aneuretus* references

Forel, 1895b: 461 (diagnosis); Bingham, 1903: 290 (diagnosis); Emery, 1913a: 6 (diagnosis, catalogue); Wilson, Eisner, Wheeler & Wheeler, 1956: 81 (diagnosis, review of subfamily and genus); Eisner, 1957: 453 (proventriculus morphology); Wheeler, G.C. & Wheeler, J. 1972: 40 (diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 60 (larvae, review & synthesis); Wheeler, G.C. & Wheeler, J. 1985: 258 (synoptic classification);

Bolton, 1990c: 1361 (morphology, status); Shattuck, 1992b: 201 (higher classification, phylogeny); Baroni Urbani, Bolton & Ward, 1992: 315 (phylogeny); Shattuck, 1994: 1 (catalogue); Bolton, 1994: 15 (diagnosis, synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 9, 20, 63 (catalogue).

Genera of Aneuretini

Genus **ANEURETELLUS*

**Aneuretellus* Dlussky, 1988: 54. Type-species: **Aneuretellus deformis*, by original designation.

Taxonomic history

**Aneuretellus* in Aneuretinae, Aneuretini: Dlussky, 1988: 54; Dlussky & Fedoseeva, 1988: 78; Shattuck, 1994: 1; Bolton, 1994: 15; Bolton, 1995b: 20.

Genus *ANEURETUS*

Aneuretus Emery, 1893a: cclxxv. Type-species: *Aneuretus simoni*, by monotypy.

Taxonomic history

[*Aneuretus* also described as new by Emery, 1893d: 241.]

Aneuretus in Ponerinae: Emery, 1895e: 767; Emery, 1896b: 176.

Aneuretus in Dolichoderinae: Forel, 1895b: 461; Bingham, 1903: 290; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 142.

Aneuretus in Dolichoderinae, Aneuretini: Emery, 1913a: 6; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; Donisthorpe, 1943c: 623; Chapman & Capco, 1951: 181; Brown, 1973b: 169; Baroni Urbani, 1989: 147.

Aneuretus in Aneuretinae, Aneuretini: Clark, 1951: 16 (footnote); Wilson, Eisner, Wheeler & Wheeler, 1956: 93; Snelling, 1981: 400; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 16; Bolton, 1990c: 1361; Shattuck, 1992b: 201; Baroni Urbani, Bolton & Ward, 1992: 315; Shattuck, 1994: 1; Bolton, 1994: 15.

Genus references: see under Aneuretini, above.

Genus **MIANEURETUS*

**Mianeuretus* Carpenter, 1930: 38. Type-species: **Mianeuretus mirabilis*, by original designation.

Taxonomic history

**Mianeuretus* in Dolichoderinae, Aneuretini: Carpenter, 1930: 38.

**Mianeuretus* in Aneuretinae, Aneuretini: Wilson, Eisner, Wheeler & Wheeler, 1956: 93 (footnote); Snelling, 1981: 401; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 17; Shattuck, 1994: 2; Bolton, 1994: 15; Bolton, 1995b: 35.

Genus **PARANEURETUS*

**Paraneuretus* Wheeler, W.M. 1915e: 73. Type-species: **Paraneuretus tornquisti*, by original designation.

Taxonomic history

[**Paraneuretus* Wheeler, W.M. 1908b: 413; Wheeler, W.M. 1910d: 148; Emery, 1913a: 2; *nomina nuda*.]

**Paraneuretus* in Dolichoderinae, Aneuretini: Wheeler, W.M. 1915e: 73; Donisthorpe, 1943c: 681.

**Paraneuretus* in Aneuretinae, Aneuretini: Wilson, Eisner, Wheeler & Wheeler, 1956: 93 (footnote); Snelling, 1981: 400; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 17; Shattuck, 1994: 2; Bolton, 1994: 15; Bolton, 1995b: 41.

Genus **PROTANEURETUS*

**Protaneuretus* Wheeler, W.M. 1915e: 71. Type-species: **Protaneuretus succineus*, by monotypy.

Taxonomic history

[**Protaneuretus* Wheeler, W.M. 1908b: 413; Wheeler, W.M. 1910d: 148; Emery, 1913a: 2; *nomina nuda*.]

**Protaneuretus* in Dolichoderinae, Aneuretini: Wheeler, W.M. 1915e: 71; Donisthorpe, 1943c: 688.

**Protaneuretus* in Aneuretinae, Aneuretini: Wilson, Eisner, Wheeler & Wheeler, 1956: 93 (footnote); Snelling, 1981: 400; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 17; Shattuck, 1994: 2; Bolton, 1994: 15; Bolton, 1995b: 44.

Genus *incertae sedis* in Aneuretinae

Genus **BURMOMYRMA*

**Burmomyrma* Dlussky, 1996: 87. Type-species: **Burmomyrma rossi*, by original designation.

Taxonomic history

**Burmomyrma* dubiously in Aneuretinae: Dlussky, 1996: 87.

SUBFAMILY DOLICHODERINAE

Subfamily DOLICHODERINAE

Dolichoderidae Forel, 1878: 364. Type-genus: *Dolichoderus*.

Taxonomic history

Dolichoderinae as family: Emery, 1894b: 378 [Dolichoderidae]; Ashmead, 1905b: 384 [Dolichoderidae];

Novák & Sadil, 1941: 94 [Dolichoderidae]; Bernard, 1951: 1071 [Dolichoderidae]; Bernard, 1953: 255 [Dolichoderidae].

Dolichoderinae as tribe of Formicidae: André, 1882a: 127 [Dolichoderidae].

Dolichoderinae as subfamily of Formicidae: Forel, 1878: 364 [Dolichoderidae]; Emery & Forel, 1879: 454 [Dolichoderidae]; Nasonov, 1889: 26 [Dolichoderidae]; Forel, 1892g: 220 [Dolichoderidae]; Forel, 1893a: 165; Dalla Torre, 1893: 156; Forel, 1895a: 107 [Dolichoderidae]; Emery, 1895e: 771 [subfamily spelled Dolichoderini]; Emery, 1896b: 186; Forel, 1899: 98; Bingham, 1903: 288; Wheeler, W.M. 1910d: 142; Emery, 1913a: 2; Arnold, 1915: 143; Wheeler, W.M. 1915e: 71; Wheeler, 1915g: 811 [Dolichoderides]; Arnold, 1915: 143; Donisthorpe, 1915: 178; Forel, 1917: 247; Escherich, 1917: 2 [Dolichoderini]; Bondroit, 1918: 86 [Dolichoderitae]; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 199; Borgmeier, 1923: 80; Karavaiev, 1936: 163; Smith, M.R. 1951: 833; Clark, 1951: 16; Brown, 1954b: 29; Kempf, 1972a: 266; Wheeler, G.C. & Wheeler, J. 1972: 41; Brown, 1973b: 169; all subsequent authors. [*Taxonomy*, p. 18.]

Tribe: Dolichoderini.

Tribe DOLICHODERINI

Dolichoderidae Forel, 1878: 364. Type-genus: *Dolichoderus*.

Taxonomic history

Dolichoderini as tribe of Dolichoderinae: Emery, 1913a: 7; Wheeler, W.M. 1915e: 77; Wheeler, W.M. 1922a: 688; all subsequent authors.

Junior synonyms of DOLICHODERINI

Leptomymecini Emery, 1913a: 15. Type-genus: *Leptomymex*.

Taxonomic history

Leptomymecini as tribe of Dolichoderinae: Emery, 1913a: 15; Wheeler, W.M. 1915c: 262 [Leptomymecii]; Forel, 1917: 247; Wheeler, W.M. 1922a: 687; Wheeler, G.C. & Wheeler, J. 1985: 258 [Leptomymecini]; Dlussky & Fedoseeva, 1988: 78 [Leptomymecini]; Hölldobler & Wilson, 1990: 17 [Leptomymecini].

Leptomymecini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

Tapinomini Emery, 1913a: 17. Type-genus: *Tapinoma*.

Taxonomic history

Tapinomini as tribe of Dolichoderinae: Emery, 1913a: 17; Wheeler, W.M. 1915e: 86; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; subsequent authors to Dlussky & Fedoseeva, 1988: 77; Hölldobler & Wilson, 1990: 17; Jaffe, 1993: 9 (anachronism).

Tapinomini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

*Pityomymecini Wheeler, W.M. 1915e: 98. Type-genus: **Pityomymex*.

Taxonomic history

*Pityomymecini as tribe of Dolichoderinae: Wheeler, W.M. 1915e: 98; Dlussky & Fedoseeva, 1988: 78.

*Pityomymecini as tribe of Formicinae: Donisthorpe, 1943c: 684 (error).

*Pityomymecini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

*Miomymecini Carpenter, 1930: 51. Type-genus: **Miomymex*.

Taxonomic history

*Miomymecini as tribe of Dolichoderinae: Carpenter, 1930: 51.

*Miomymecini as junior synonym of Dolichoderinae: Bolton, 1994: 26.

Axinidriini Weber, 1941: 193. Type-genus: *Axinidris*.

Taxonomic history

Axinidriini as tribe of Dolichoderinae: Weber, 1941: 193; Dlussky & Fedoseeva, 1988: 78.

Axinidriini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

Anonychomyrmini Donisthorpe, 1947a: 588. Type-genus: *Anonychomyrma*.

Taxonomic history

Anonychomyrmini as tribe of Dolichoderinae: Donisthorpe, 1947a: 588.

Anonychomyrmini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

Liometopini Dlussky & Fedoseeva, 1988: 77. Type-genus: *Liometopum*.

Taxonomic history

Liometopini as tribe of Dolichoderinae: Dlussky & Fedoseeva, 1988: 77.

Liometopini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

*Zherichiniini Dlussky, 1988: 56. Type-genus: **Zherichinius*.

Taxonomic history

*Zherichiniini as tribe of Dolichoderinae: Dlussky, 1988: 56; Dlussky & Fedoseeva, 1988: 77.

*Zherichiniini as junior synonym of Dolichoderinae: Shattuck, 1992c: 5; Bolton, 1994: 26.

Genera (extant): **Alloiomma*, **Asymphylomyrmex*, **Ctenobethylus*, **Elaeomyrmex*, **Elaphrodites*, **Emplastus*, **Eotapinoma*, **Eurymymex*, **Kotshkorkia*, **Leptomymex*, **Miomymex*, **Petraeomyrmex*, **Pityomymex*, **Protazteca*, **Zherichinius*.

Genera (extinct): **Alloiomma*, **Asymphylomyrmex*, **Ctenobethylus*, **Elaeomyrmex*, **Elaphrodites*, **Emplastus*, **Eotapinoma*, **Eurymymex*, **Kotshkorkia*, **Leptomymex*, **Miomymex*, **Petraeomyrmex*, **Pityomymex*, **Protazteca*, **Zherichinius*.

Subfamily and tribe references, world

Forel, 1878: 364, 380 (diagnosis, genera); Dalla Torre, 1893: 156 (catalogue); Emery, 1895e: 771 (synoptic classification); Emery, 1896b: 186 (genera key); Handlirsch, 1907: 869 (*fossil taxa catalogue); Wheeler, W.M. 1910d: 142 (diagnosis); Emery, 1913a: 2, 6 (diagnosis, tribe key, catalogue); Emery, 1913a: 17 (Tapinomini diagnosis, genera key, catalogue); Arnold, 1915: 144, (diagnosis); Gallardo, 1916a: 3 (diagnosis); Forel, 1917: 247 (synoptic classification); Forel, 1921: 136 (diagnosis); Wheeler, W.M. 1922a: 199, 687, 688 (diagnosis, tribe key, Tapinomini genera key); Brown & Nutting, 1950: 127 (venation, phylogeny); Brown, 1954b: 29 (phylogeny); Eisner, 1957: 453 (proventriculus morphology); Bernard, 1967: 246 (diagnosis); Gotwald, 1969: 118 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 41 (diagnosis); Brown, 1973b: 169 (genera & distribution); Wheeler, G.C. & Wheeler, J. 1976: 61 (larvae, review & synthesis); Snelling, 1981: 401 (synoptic classification); Dazzini Valcurone & Fanfani, 1985: 1 (gastral glands); Wheeler, G.C. & Wheeler, J. 1985: 258 (synoptic classification); Billen, 1986: 173 (Dufour's gland); Billen, 1987: 278 (abdominal glands); Baroni Urbani & Wilson, 1987: 1 (*fossil Leptomyrmecini); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 9 (synoptic classification, genera keys); Baroni Urbani, Bolton & Ward, 1992: 316 (phylogeny); Shattuck, 1992b: 199 (higher classification, phylogeny); Shattuck, 1992c: 20 (revision of subfamily, genera key); Shattuck, 1994: 3 (catalogue); Bolton, 1994: 22 (diagnosis, synoptic classification, genera keys); Shattuck, 1995: 217 (phylogeny, genera); Bolton, 1995a: 1038 (census); Bolton, 1995b: 10 (catalogue); Wenseleers, Schoeters, *et al.*, 1998: 121 (cloacal gland); Brandão, Baroni Urbani, Wagensberg & Yamamoto, 1998: 411 (phylogeny, genera); Chiotis, Jermini & Crozier, 2000: 108 (phylogeny).

Regional and national faunas with keys

André, 1882a: 127 (Europe & Algeria); Nasonov, 1889: 50 (Russia); Forel, 1891b: 9 (Madagascar genera); Forel, 1895b: 460 (India & Sri Lanka); Bingham, 1903: 288 (India, Sri Lanka & Burma); Ruzsky, 1905: 102 (Russian Empire); Bondroit, 1910: 488 (Belgium); Wheeler, W.M. 1910d: 560 (North America genera); Stitz, 1914: 77 (Central Europe); Gallardo, 1915: 34 (Argentina genera); Forel, 1915c: 40 (Switzerland); Arnold, 1915: 145 (South Africa); Donisthorpe, 1915: 178 (Britain); Gallardo, 1916a: 12 (Argentina); Emery, 1916b: 208 (Italy); Wheeler, W.M. 1916g: 589 (U.S.A., Connecticut); Bondroit, 1918: 86 (France & Belgium); Gallardo, 1919: 253 (Argentina genera); Soudek, 1922: 58 (Czechoslovakia); Stärcke, 1926: 117 (Netherlands); Karavaiev, 1927a: 271 (Ukraine); Donisthorpe, 1927: 199 (Britain); Menozzi & Russo, 1930: 172 (Dominican Republic); Arnol'di, 1933b: 600 (Russia); Menozzi, 1933a: 90 (Israel genera); Karavaiev, 1936: 164 (Ukraine); Smith, M.R. 1937: 861 (Puerto Rico); Stitz, 1939: 209 (Germany); Kratochvíl, 1941: 94 (Central Europe); Novák & Sadil, 1941: 94 (Central Europe); Cole, 1942: 370 (U.S.A., Utah); Smith, M.R. 1943b: 309 (U.S.A. males); Buren, 1944: 290 (U.S.A., Iowa); Smith, M.R. 1947c: 592 (U.S.A. genera); Creighton, 1950a: 330 (North America); Kusnezov, 1956: 27 (Argentina); Brown, 1958c: 29 (New Zealand); Kusnezov, 1959: 40 (Neotropical genera); Gregg, 1963: 341 (U.S.A., Colorado); Wheeler, G.C. & Wheeler, J. 1963: 149 (U.S.A., North Dakota); Bernard, 1967: 246 (Western Europe); Wilson & Taylor, 1967: 17 (Polynesia); Bolton, 1973a: 329 (West Africa genera); Bolton & Collingwood, 1975: 3 (Britain); Boven, 1970: 24 (Netherlands); Snelling & Hunt, 1976: 90 (Chile); Tarbinsky, 1976: 118 (Kirgizstan); Boven, 1977: 123 (Belgium); Kutter, 1977b: 170 (Switzerland); Arnol'di & Dlussky, 1978: 546 (former European U.S.S.R.); Collingwood, 1978: 80 (Iberian Peninsula); Collingwood, 1979: 32 (Fennoscandia & Denmark); Greenslade, 1979: 28 (South Australia genera); Schembri & Collingwood, 1981: 420 (Malta); Allred, 1982: 443 (U.S.A., Utah); Baroni Urbani, 1984: 80 (Neotropical genera); Gösswald, 1985: 314 (Germany); Collingwood, 1985: 242 (Saudi Arabia); Wheeler, G.C. & Wheeler, J. 1986b: 55 (U.S.A., Nevada); Agosti & Collingwood, 1987: 278 (Balkans); Dlussky, Soyunov & Zabelin, 1990: 168 (Turkmenistan); Kupyanskaya, 1990: 152 (Far Eastern Russia); Morisita, Kubota, Onoyama, *et al.*, 1991: 2 (Japan); Atanasov & Dlussky, 1992: 49 (Bulgaria); Lattke, in Jaffe, 1993: 147 (Neotropical genera); Arakelian, 1994: 70 (Armenia); Wu, J. & Wang, 1995: 115 (China genera); Kupyanskaya, 1995: 331 (Far Eastern Russia); Collingwood & Agosti, 1996: 359 (Saudi Arabia); Seifert, 1996: 161 (Central Europe); Skinner & Allen, 1996: 40 (Britain); Collingwood & Prince, 1998: 20 (Portugal); Kim & Kim, 1999: 18 (Korea); Shattuck, 1999: 26, 64 (Australia genera, synopsis); Andersen, 2000: 59 (northern Australia genera); Zhou, 2001: 149 (China, Guangxi); Czechowski, Radchenko & Czechowska, 2002: 134 (Poland); Aktaş & Radchenko, 2002: 54 (Turkey genera); Yoshimura & Onoyama, 2002: 425 (Japan genera, males key); Imai, Kihara, Kondoh, Kubota *et al.* 2003: 83 (Japan).

Genera of Dolichoderini**Genus *ALLOIOMMA**

**Alloiomma* Zhang, 1989: 282. Type-species: **Alloiomma changweiensis*, by original designation.

Taxonomic history

**Alloiomma* in Dolichoderinae: Zhang, 1989: 282.

Genus AMYRMEX

Amyrmex Kusnezov, 1953a: 333. Type-species: *Amyrmex golbachii*, by original designation.

Taxonomic history

Amyrmex in Dolichoderinae, Tapinomini: Kusnezov, 1953a: 333; Kempf, 1972a: 20; Dlussky & Fedoseeva, 1988: 77.

Amyrmex incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Amyrmex as junior synonym of *Forelius*: Shattuck, 1992c: 87; Shattuck, 1994: 91; Bolton, 1994: 26; Bolton, 1995b: 20.

Amyrmex as genus: Kusnezov, 1953a: 333; Kempf, 1972a: 20; Dlussky & Fedoseeva, 1988: 77; Cuzzo, 2000: 271.

Genus references

Cuzzo, 2000: 271 (review of genus).

Genus ANILLIDRIS

Anillidris Santschi, 1936b: 414. Type-species: *Anillidris bruchi*, by original designation.

Taxonomic history

Anillidris in Dolichoderinae, Tapinomini: Donisthorpe, 1943c: 623; subsequent authors to the following.

Anillidris in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 33; Bolton, 1994: 26.

Anillidris as junior synonym of *Linepithema*: Kusnezov, 1958d: 273; Kusnezov, 1959: 50; Kusnezov, 1964: 65; Kempf, 1972a: 135.

Anillidris as genus: Santschi, 1936b: 414; Brown, 1973b: 178; Shattuck, 1992c: 33; Shattuck, 1994: 3; Bolton, 1994: 26; Bolton, 1995b: 20.

Genus references

Shattuck, 1992c: 33 (diagnosis, review of genus).

Genus ANONYCHOMYRMA

Anonychomyrma Donisthorpe, 1947a: 588. Type-species: *Anonychomyrma myrmex*, by monotypy.

Taxonomic history

Anonychomyrma in Dolichoderinae, Anonychomyrmini: Donisthorpe, 1947a: 588.

Anonychomyrma in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 37; Shattuck, 1994: 3; Bolton, 1994: 19; Bolton, 1995a: 1048; Bolton, 1995b: 20.

Genus references

Shattuck, 1992a: 13 (diagnosis); Shattuck, 1992c: 37 (diagnosis, review of genus); Shattuck, 1999: 64 (Australia synopsis).

Genus *ASYMPHYLOMYRMEX

**Asymphylomyrmex* Wheeler, W.M. 1915e: 96. Type-species: **Asymphylomyrmex balticus*, by monotypy.

Taxonomic history

**Asymphylomyrmex* in Dolichoderinae, Tapinomini: Wheeler, W.M. 1915e: 96; Donisthorpe, 1943c: 626; Hölldobler & Wilson, 1990: 17.

**Asymphylomyrmex* in Dolichoderinae, Liometopini: Dlussky & Fedoseeva, 1988: 77.

**Asymphylomyrmex* in Dolichoderinae, Dolichoderini: Bolton, 1994: 26; Shattuck, 1994: 8; Bolton, 1995b: 21.

Genus AXINIDRIS

Axinidris Weber, 1941: 192. Type-species: *Axinidris acholli*, by original designation.

Taxonomic history

Axinidris in Dolichoderinae, Axinidriini: Weber, 1941: 193; Donisthorpe, 1943c: 627; Dlussky & Fedoseeva, 1988: 78.

Axinidris in Dolichoderinae, Tapinomini: Hölldobler & Wilson, 1990: 17.

Axinidris in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 42; Shattuck, 1994: 9; Bolton, 1994: 26; Bolton, 1995a: 1048; Bolton, 1995b: 22.

Genus references

Shattuck, 1991: 105 (diagnosis, all species revision, key); Shattuck, 1992c: 42 (diagnosis, review of genus);

Genus AZTECA

Azteca Forel, 1878: 384. Type-species: *Liometopum xanthochroum*, by monotypy.

Taxonomic history

[Type-species not *Tapinoma instabilis*, unjustified subsequent designation (based on inaccurate synonymy) by Wheeler, W.M. 1911b: 159. Type-species not *Azteca muelleri*, unjustified subsequent designation by Emery, 1913a: 31; repeated in Wheeler, W.M. 1913a: 78.]

Azteca in Dolichoderinae: Forel, 1878: 384 [Dolichoderidae]; Dalla Torre, 1893: 163; Forel, 1895a: 108; Emery, 1895e: 771; Forel, 1899: 104; Wheeler, W.M. 1910d: 142.

Azteca in Dolichoderidae: Ashmead, 1905b: 384.

Azteca in Dolichoderinae, Tapinomini: Emery, 1913a: 29; Forel, 1917: 248; Wheeler, W.M. 1922a: 690; Donisthorpe, 1943c: 627; Kempf, 1972a: 29; Dlussky & Fedoseeva, 1988: 77; Jaffe, 1993: 9 (anachronism).

Azteca in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 49; Bolton, 1994: 26.

[*Aztecum* Bertkau, 1879: 13, incorrect subsequent spelling.]

Genus references

Dalla Torre, 1893: 163 (catalogue); Emery, 1893b: 127 (species key); Emery, 1913a: 29 (diagnosis, catalogue); Kempf, 1972a: 29 (catalogue); Longino, 1989: 1 (*A. alfari* group on *Cecropia*); Brandão, 1991: 329 (catalogue); Longino, 1991: 1571 (*Cecropia*-inhabiting species key); Shattuck, 1992c: 49 (diagnosis, review of genus); Shattuck, 1994: 10 (catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 78

(catalogue); Longino, 1996: 131 (Costa Rica stem-inhabiting species key).

Genus *BOTHRIOMYRMEX*

Bothriomyrmex Emery, 1869c: 117. Type-species: *Bothriomyrmex costae*, by monotypy.

Taxonomic history

Bothriomyrmex in Formicinae: André, 1881: 64 [Formicidae].

Bothriomyrmex in Dolichoderinae: Forel, 1878: 380 [Dolichoderidae]; Emery & Forel, 1879: 454 [Dolichoderidae]; Dalla Torre, 1893: 170; Emery, 1895e: 771; Forel, 1895b: 469; Wheeler, W.M. 1910d: 142.

Bothriomyrmex in Dolichoderidae: Ashmead, 1905b: 384.

Bothriomyrmex in Dolichoderinae, Tapinomini: Emery, 1913a: 27; Forel, 1917: 248; Bondroit, 1918: 88; Wheeler, W.M. 1922a: 689; all subsequent authors to the following.

Bothriomyrmex in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 54; Bolton, 1994: 26.

Junior synonym of *BOTHRIOMYRMEX*

Chronoxenus Santschi, 1919d: 202 [as subgenus of *Bothriomyrmex*]. Type-species: *Bothriomyrmex myops*, by subsequent designation of Donisthorpe, 1944c: 102.

Taxonomic history

Chronoxenus as subgenus of *Bothriomyrmex*: Santschi, 1919d: 202; Wheeler, W.M. 1922a: 690.

Chronoxenus as junior synonym of *Bothriomyrmex*: Brown, 1973b: 179 [provisional]; Shattuck, 1992c: 54; Bolton, 1994: 26.

Genus references

Forel, 1878: 380 (diagnosis); André, 1882b: 218 (Europe & Algeria species); Dalla Torre, 1893: 170 (catalogue); Forel, 1895b: 469 (India & Sri Lanka species key); Bingham, 1903: 305 (India, Sri Lanka & Burma species key); Emery, 1913a: 27 (diagnosis, catalogue); Wheeler, W.M. 1922a: 690 (subgenera key); Emery, 1925d: 5 (European and Oriental species); Kratochvíl, 1941: 96 (Central Europe species key); Novák & Sadil, 1941: 96 (Central Europe species key); Chapman & Capco, 1951: 187 (Asia checklist); Bernard, 1967: 260 (diagnosis, Western Europe species key); Kutter, 1977b: 175 (Switzerland species key); Arnol'di & Dlussky, 1978: 548 (former European U.S.S.R. species key); Collingwood, 1978: 87 (Iberian Peninsula species key); Gösswald, 1985: 316 (Germany species key); Taylor & Brown, D.R. 1985: 92 (Australia catalogue); Taylor, 1987a: 8 (Australia checklist); Agosti & Collingwood, 1987: 279 (Balkans species key); Shattuck, 1992c: 54 (diagnosis, review of genus); Shattuck, 1994: 31 (catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue); Wu, J. & Wang, 1995: 119 (China species key); Seifert, 1996: 163 (Central Europe species key); Shattuck, 1999: 66 (Australia synopsis).

Genus **CTENOBETHYLUS*

**Ctenobethylus* Brues, 1939: 261 [as member of family Bethyridae]. Type-species: **Ctenobethylus succinalis* (junior synonym of *Hypoclinea goepperti*), by original designation.

Taxonomic history

**Ctenobethylus* in Bethyridae: Brues, 1939: 261.

**Ctenobethylus* in Formicidae: Brown, 1977: 213; Hölldobler & Wilson, 1990: 17.

**Ctenobethylus* as junior synonym of *Iridomyrmex*: Brown, 1977: 213; Hölldobler & Wilson, 1990: 17.

**Ctenobethylus* as junior synonym of *Liometopum*: Shattuck, 1992c: 121; Bolton, 1994: 26.

**Ctenobethylus* as genus: Brues, 1939: 261; Dlussky, 1997: 623.

Genus *DOLEROMYRMA*

Doleromyrma Forel, 1907a: 28 [as subgenus of *Tapinoma*]. Type-species: *Tapinoma (Doleromyrma) darwinianum*, by monotypy.

Taxonomic history

Doleromyrma in Dolichoderinae, Tapinomini: Emery, 1913a: 22; Donisthorpe, 1943c: 640; Hölldobler & Wilson, 1990: 17.

Doleromyrma in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 60; Bolton, 1994: 26.

Doleromyrma as subgenus of *Tapinoma*: Forel, 1907a: 28; Wheeler, W.M. 1910d: 142.

Doleromyrma as subgenus of *Iridomyrmex*: Forel, 1912a: 81.

Doleromyrma as junior synonym of *Iridomyrmex*: Emery, 1913a: 22; Wheeler, W.M. 1922a: 689; all subsequent authors to the following.

Doleromyrma as genus: Shattuck, 1992a: 14; Bolton, 1994: 26.

Genus references

Shattuck, 1992a: 14 (diagnosis); Shattuck, 1992c: 60 (diagnosis, review of genus); Shattuck, 1994: 38 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 172 (catalogue); Shattuck, 1999: 67 (Australia synopsis).

Genus *DOLICHODERUS*

Dolichoderus Lund, 1831a: 130. Type-species: *Formica attelaboides*, by monotypy.

Taxonomic history

Dolichoderus in Formicidae: Smith, F. 1858b: 75.

Dolichoderus in Formicinae: Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 9 [Formicidae].

Dolichoderus in Dolichoderidae: Ashmead, 1905b: 384.

Dolichoderus in Dolichoderinae: Forel, 1878: 386 [Dolichoderidae]; Emery & Forel, 1879: 455

[Dolichoderidae]; Dalla Torre, 1893: 156; Forel, 1895a: 107 [Dolichoderidae]; Emery, 1895e: 771; Forel, 1895b: 462; Forel, 1899: 98; Wheeler, W.M. 1910d: 142.

Dolichoderus in Dolichoderinae, Dolichoderini: Emery, 1913a: 7; Wheeler, W.M. 1915e: 77; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; all subsequent authors.

Junior synonyms of *DOLICHODERUS*

Hypoclinea Mayr, 1855: 377 (attributed to Foerster). Type-species: *Formica quadripunctata*, by subsequent designation of Wheeler, W.M. 1911b: 165.

Taxonomic history

Hypoclinea in Formicidae: Smith, F. 1858b: 57.

Hypoclinea in Formicinae: Mayr, 1855: 377 [Formicidae]; Mayr, 1861: 40 [Formicidae]; Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 9 [Formicidae]; Mayr, 1868b: 53 [Formicidae]; André, 1874: 168 [Formicidae].

Hypoclinea in Dolichoderidae: Ashmead, 1905b: 384.

Hypoclinea in Dolichoderinae, Dolichoderini: Emery, 1913a: 18; Forel, 1917: 247; all subsequent authors.

Hypoclinea as genus: Mayr, 1855: 377; Mayr, 1865: 9; Mayr, 1868b: 53; Mayr, 1870b: 953; Smith, 1871a: 310; Ashmead, 1905b: 384; Kempf, 1972a: 118; Lattke, 1987: 259; Dlussky & Fedoseeva, 1988: 78; MacKay & Vinson, 1989: 17; Hölldobler & Wilson, 1990: 17; Wu, J. & Wang, 1995: 120 (anachronism).

Hypoclinea as subgenus of *Dolichoderus*: Emery, 1894a: 234; Wheeler, W.M. 1910d: 142; Emery, 1913a: 10; Wheeler, W.M. 1915e: 77; Forel, 1917: 247; Borgmeier, 1923: 84; Clark, 1930a: 252; McAreavey, 1949: 17; Creighton, 1950a: 331; Chapman & Capco, 1951: 182; Kusnezov, 1956: 28; Kusnezov, 1959: 50; Smith, D.R. 1979: 1415; Kupyanskaya, 1990: 154.

Hypoclinea as junior synonym of *Dolichoderus*: Forel, 1878: 386; Emery & Forel, 1879: 455; Dalla Torre, 1893: 156; Bingham, 1903: 291; Brown, 1973b: 181 [provisional]; Shattuck, 1992c: 66; MacKay, 1993: 6; Bolton, 1994: 26.

Monacis Roger, 1862a: 233. Type-species: *Formica bispinosa*, by subsequent designation of Wheeler, W.M. 1911b: 167.

Taxonomic history

Monacis in Dolichoderidae: Ashmead, 1905b: 384.

Monacis in Dolichoderinae, Dolichoderini: Emery, 1913a: 9; Forel, 1917: 247; all subsequent authors.

Monacis as genus: Roger, 1862a: 233; Ashmead, 1905b: 384; Brown, 1950c: 249; Kempf, 1959a: 227; Kempf, 1972a: 141; Kempf, 1972b: 253; Dlussky & Fedoseeva, 1988: 78; MacKay & Vinson, 1989: 20; Hölldobler & Wilson, 1990: 17.

Monacis as subgenus of *Dolichoderus*: Emery, 1894a: 228; Wheeler, W.M. 1910d: 142; Emery, 1913a: 9; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; Borgmeier, 1923: 81; Kusnezov, 1956: 27; Kusnezov, 1959: 50.

Monacis as junior synonym of *Hypoclinea*: Mayr, 1862: 704.

Monacis as junior synonym of *Dolichoderus*: Forel, 1878: 386; Emery & Forel, 1879: 455; Dalla Torre, 1893: 156; Brown, 1973b: 182 [provisional]; Shattuck, 1992c: 66; MacKay, 1993: 6; Bolton, 1994: 26.

Monoceratoclinea Wheeler, W.M. 1935c: 68 [as subgenus of *Dolichoderus*]. Type-species: *Dolichoderus (Hypoclinea) monoceros*, by original designation.

Taxonomic history

Monoceratoclinea as subgenus of *Dolichoderus*: Wheeler, W.M. 1935c: 68.

Monoceratoclinea as genus: Brown, 1950c: 249; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 17.

Monoceratoclinea as junior synonym of *Dolichoderus*: Shattuck, 1992c: 66; Bolton, 1994: 26.

Diceratoclinea Wheeler, W.M. 1935c: 69 [as subgenus of *Dolichoderus*]. Type-species: *Dolichoderus scabridus*, by original designation.

Taxonomic history

Diceratoclinea as subgenus of *Dolichoderus*: Wheeler, W.M. 1935c: 69; Chapman & Capco, 1951: 181.

Diceratoclinea as genus: Brown, 1950c: 249.

Diceratoclinea as junior synonym of *Dolichoderus*: Brown, 1973b: 180 [provisional]; Taylor & Brown, D.R. 1985: 93; Shattuck, 1992c: 66; Bolton, 1994: 26.

Acanthoclinea Wheeler, W.M. 1935c: 69 [as subgenus of *Dolichoderus*]. Type-species: *Dolichoderus doriae*, by original designation.

Taxonomic history

Acanthoclinea in Dolichoderinae, Dolichoderini: Donisthorpe, 1943c: 618.

Acanthoclinea as subgenus of *Dolichoderus*: Wheeler, W.M. 1935c: 69.

Acanthoclinea as genus: Brown, 1950c: 249.

Acanthoclinea as junior synonym of *Dolichoderus*: Taylor & Brown, D.R. 1985: 93; Shattuck, 1992c: 66; Bolton, 1994: 26.

Karawajewella Donisthorpe, 1944a: 59.

Taxonomic history

[Replacement name for *Diabolus* Karavaiev, 1926: 424; junior homonym of *Diabolus* Gray, J.E. 1841: 400 (Mammalia).]

Karawajewella as junior synonym of *Dolichoderus*: Brown, 1973b: 181 [provisional]; Shattuck, 1992c: 66; Bolton, 1994: 26.

Homonym replaced by *Karawajewella*

Diabolus Karavaiev, 1926: 424 [as subgenus of *Dolichoderus*]. Type-species: *Dolichoderus (Diabolus) bifurcatus* (junior synonym of *Dolichoderus cuspidatus*), by original designation.

Taxonomic history

[*Diabolus* Karavaiev junior homonym of *Diabolus* Gray, J.E. 1841: 400 (Mammalia).]

Diabolus as subgenus of *Dolichoderus*: Wheeler, W.M. 1935c: 68.

Genus references

Roger, 1863b: 10, 14, 15 (*Dolichoderus*, *Hypoclinea*, *Monacis* catalogues); Mayr, 1863: 407, 423 (*Dolichoderus*, *Hypoclinea* catalogues); Mayr, 1865: 9 (*Dolichoderus*, *Hypoclinea* diagnoses); Mayr, 1867a: 75 (*Hypoclinea* diagnosis); Mayr, 1868b: 54 (*Baltic Amber species key); Mayr, 1870b: 955 (*Hypoclinea* species key); Mayr, 1876: 79 (Australia species key); André, 1882b: 225 (Europe & Algeria species); Mayr, 1886c: 435 (U.S.A. species key); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 156 (catalogue); Forel, 1895b: 462 (India & Sri Lanka species key); Bingham, 1903: 292 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1905b: 306 (North America species key); Emery, 1913a: 7 (diagnosis, subgenera key, catalogue); Emery, 1913a: 9, 10 (*D. (Monacis)*, *D. (Hypoclinea)*, catalogues); Mann, 1916: 460 (Brazil *D. (Dolichoderus)* species key); Wheeler, W.M. 1922a: 688 (subgenera key); Clark, 1930a: 253 (Australia *D. (Hypoclinea)* species key); Creighton, 1950a: 333 (North America *D. (Hypoclinea)* species key); Chapman & Capco, 1951: 181 (Asia checklist); Kempf, 1959a: 230 (*Monacis*, all species revision, key); Wheeler, J. 1963: 149 (U.S.A., North Dakota species key); Bernard, 1967: 249 (diagnosis); Kempf, 1969: 292 (Neotropical *D. (Dolichoderus)* species key); Kempf, 1972a: 98, 118, 141 (Neotropical *Dolichoderus*, *Hypoclinea*, *Monacis*, catalogues); Kempf, 1972b: 253 (*Monacis* species, additions to 1959a key); Smith, D.R. 1979: 1415 (North America catalogue); Taylor & Brown, D.R. 1985: 93 (Australia catalogue); Taylor, 1987a: 24 (Australia, New Caledonia checklist); Harada, 1987: 602 (*Monacis* species key); Latkke, 1987: 263 (Neotropical *D. bispinosus* group, key); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Johnson, 1989a: 5 (U.S.A. species key); Hölldobler & Wilson, 1990: 17 (synoptic classification); Brandão, 1991: 340, 347, 356 (Neotropical catalogue); Shattuck, 1992c: 66 (diagnosis, review of genus); MacKay, 1993: 17 (New World, all species revision, key); Radchenko, 1994a: 112 (South Siberia species key); Shattuck, 1994: 39 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 172 (catalogue); Wu, J. & Wang, 1995: 120 (China species key); Xu, 1995a: 34 (China species key); Shattuck, 1999: 68 (Australia synopsis); Xu, 2001b: 356 (China species key); Zhou, 2001: 153 (China, Guangxi species key); Dill, 2002: 21, 30 (southeast Asia species groups key, *D. cuspidatus* group revision, key).

Genus DORYMYRMEX

Dorymyrmex Mayr, 1866a: 494. Type-species: *Dorymyrmex flavescens*, by monotypy.

Taxonomic history

Dorymyrmex in Dolichoderidae: Ashmead, 1905b: 384.

Dorymyrmex in Dolichoderinae: Forel, 1878: 383 [Dolichoderidae]; Dalla Torre, 1893: 167; Emery, 1895e: 771; Forel, 1899: 103; Wheeler, W.M. 1910d: 142.

Dorymyrmex in Dolichoderinae, Tapinomini: Emery, 1913a: 36; Forel, 1917: 248; Wheeler, W.M. 1922a: 689; Donisthorpe, 1943c: 640; subsequent authors and Jaffe, 1993: 9 (anachronism).

Dorymyrmex in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 77; Bolton, 1994: 26.

Junior synonyms of DORYMYRMEX

Psammomyrma Forel, 1912e: 43 [as subgenus of *Dorymyrmex*]. Type-species: *Dorymyrmex planidens*, by subsequent designation of Wheeler, W.M. 1913a: 82.

Taxonomic history

Psammomyrma as subgenus of *Dorymyrmex*: Forel, 1912e: 43; Kempf, 1972a: 100.

Psammomyrma as junior synonym of *Dorymyrmex*: Forel, 1913b: 350 (in text); Santschi, 1922a: 365; Wheeler, W.M. 1922a: 689; Snelling & Hunt, 1976: 93; Shattuck, 1992c: 77; Bolton, 1994: 26.

Conomyrma Forel, 1913b: 350 (in text) [as subgenus of *Dorymyrmex*]. Type-species: *Prenolepis pyramica*, by subsequent designation of Santschi, 1922a: 365.

Taxonomic history

Conomyrma in Dolichoderinae, Tapinomini: Forel, 1917: 248; Donisthorpe, 1943c: 634; Jaffe, 1993: 9 (anachronism).

Conomyrma as subgenus of *Dorymyrmex*: Forel, 1913b: 350; Forel, 1917: 248; Santschi, 1922a: 365; Wheeler, W.M. 1922a: 689; Gallardo, 1930: 147; Smith, M.R. 1951: 837; Smith, M.R. 1958: 140.

Conomyrma as genus: Kusnezov, 1952f: 429; Kusnezov, 1959: 51; Kusnezov, 1964: 66; Kempf, 1972a: 78; Snelling, 1973a: 1; Smith, D.R. 1979: 1419; Hölldobler & Wilson, 1990: 17; Jaffe, 1993: 9 (anachronism).

Conomyrma as junior synonym of *Dorymyrmex*: Brown, 1973b: 179 [provisional]; Shattuck, 1992c: 77; Bolton, 1994: 26.

Araucomyrmex Gallardo, 1919: 249. Type-species: *Dorymyrmex tener*, by original designation.

Taxonomic history

Araucomyrmex in Dolichoderinae, Tapinomini: Wheeler, W.M. 1922a: 689; Donisthorpe, 1943c: 625; Kempf, 1972a: 25; Dlussky & Fedoseeva, 1988: 77.

Araucomyrmex as genus: Gallardo, 1919: 249; Wheeler, W.M. 1922a: 689; Kusnezov, 1956: 28; Kusnezov, 1959: 51; Kusnezov, 1964: 66; Kempf, 1972a: 25; Snelling, 1975: 9; Snelling & Hunt, 1976: 93; Dlussky & Fedoseeva, 1988: 77 (anachronism).

Araucomyrmex as subgenus of *Dorymyrmex*: Santschi, 1922a: 365; Gallardo, 1930: 147; Kusnezov, 1952f:

428.

Araucomyrmex as junior synonym of *Conomyrma*: Snelling, 1981: 402.*Araucomyrmex* as junior synonym of *Dorymyrmex*: Brown, 1973b: 178 [provisional]; Shattuck, 1992c: 77.*Ammonomyrma* Santschi, 1922a: 365 [as subgenus of *Dorymyrmex*]. Type-species: *Dorymyrmex exsanguis*, by original designation.**Taxonomic history***Ammonomyrma* as subgenus of *Dorymyrmex*: Santschi, 1922a: 365; Gallardo, 1930: 147; Kempf, 1972a: 100.*Ammonomyrma* as junior synonym of *Araucomyrmex*: Snelling & Hunt, 1976: 93.*Ammonomyrma* as junior synonym of *Dorymyrmex*: Shattuck, 1992c: 77.*Biconomyrma* Kusnezov, 1952f: 429 [as subgenus of *Conomyrma*]. Type-species: *Dorymyrmex pyramicus* var. *brunneus* (now *Dorymyrmex brunneus*), by subsequent designation of Kusnezov, 1959: 51.**Taxonomic history***Biconomyrma* as subgenus of *Conomyrma*: Kusnezov, 1952f: 429.*Biconomyrma* as genus: Kusnezov, 1959: 51; Kusnezov, 1964: 67.*Biconomyrma* as junior synonym of *Conomyrma*: Smith, M.R. 1958: 140; Kempf, 1972a: 78.*Biconomyrma* as junior synonym of *Dorymyrmex*: Shattuck, 1992c: 78.*Spinomyrma* Kusnezov, 1952f: 429 (diagnosis in key) [as subgenus of *Dorymyrmex*]. Type-species: *Dorymyrmex alboniger*, by subsequent designation of Kusnezov, 1959: 51.**Taxonomic history***Spinomyrma* as subgenus of *Dorymyrmex*: Kusnezov, 1952f: 429; Kempf, 1972a: 100.*Spinomyrma* as genus: Kusnezov, 1956: 30 (in key); Kusnezov, 1959: 51; Kusnezov, 1964: 66.*Spinomyrma* as junior synonym of *Dorymyrmex*: Snelling & Hunt, 1976: 93; Shattuck, 1992c: 78; Bolton, 1994: 26.**Genus references**

Mayr, G. 1868a: 165 (diagnosis); Forel, 1878: 383 (diagnosis); Cresson, 1887: 257 (U.S.A. catalogue); Dalla Torre, 1893: 167 (catalogue); André, 1903: 364 (species key); Emery, 1913a: 36 (diagnosis, catalogue); Gallardo, 1916a: 21 (Argentina species key); Wheeler, W.M. 1922a: 689 (subgenera key); Cole, 1942: 371 (U.S.A., Utah species key); Creighton, 1950a: 348 (North America species key); Kusnezov, 1952f: 428 (subgenera key); Kempf, 1972a: 25, 78, 99 (Neotropical *Araucomyrmex*, *Conomyrma*, *Dorymyrmex* catalogues); Snelling, 1973a: 1 (U.S.A. *Conomyrma* species, revision); Snelling & Hunt, 1976: 96 (Chile *Araucomyrmex* species key); Smith, D.R. 1979: 1419 (North America catalogue); Allred, 1982: 444 (U.S.A., Utah *Conomyrma* species key); Wheeler, G.C. & Wheeler, J. 1986b: 57 (U.S.A., Nevada *Conomyrma* species key); Trager, 1988: 14 (Southeastern U.S.A. *Conomyrma* species revision, key); Johnson, 1989b: 191 (U.S.A. *Conomyrma* species revision, key); Brandão, 1991: 327, 338, 340 (catalogue); Shattuck, 1992c: 77 (diagnosis, review of genus); Shattuck, 1994: 73 (catalogue); Snelling, 1995: 9 (U.S.A. species revision, key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 181 (catalogue).

Genus *ECPHORELLA**Ecphorella* Forel, 1909b: 65 [as subgenus of *Tapinoma*]. Type-species: *Tapinoma (Ecphorella) wellmani*, by monotypy.**Taxonomic history***Ecphorella* in Dolichoderinae, Tapinomini: Emery, 1913a: 42; Forel, 1917: 248; all subsequent authors to the following.*Ecphorella* in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 85; Bolton, 1994: 26.*Ecphorella* as subgenus of *Tapinoma*: Forel, 1917: 248; Wheeler, W.M. 1910d: 142; Emery, 1913a: 42; Wheeler, W.M. 1922a: 690.*Ecphorella* as genus: Brown, 1973b: 169 [provisional genus]; Shattuck, 1992c: 85; Bolton, 1994: 26.**Genus references**

Wheeler, W.M. 1922a: 925 (catalogue); Shattuck, 1992c: 85 (diagnosis, review of genus); Shattuck, 1994: 90 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 186 (catalogue).

Genus **ELAEOMYRMEX***Elaeomyrmex* Carpenter, 1930: 48. Type-species: **Elaeomyrmex gracilis*, by original designation.**Taxonomic history****Elaeomyrmex* in Dolichoderinae, Tapinomini: Carpenter, 1930: 48; subsequent authors to the following.**Elaeomyrmex* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 91; Bolton, 1994: 26; Bolton, 1995b: 187.**Genus **ELAPHRODITES*****Elaphrodites* Zhang, 1989: 284. Type-species: **Elaphrodites scutulatus*, by original designation.**Taxonomic history****Elaphrodites* in Dolichoderinae: Zhang, 1989: 284.**Genus **EMPLASTUS*****Emplastus* Donisthorpe, 1920: 86. Type-species: **Emplastus emeryi*, by original designation.**Taxonomic history****Emplastus* in Ponerinae, Ponerini: Donisthorpe, 1920: 86; Bolton, 1994: 164; Bolton, 1995b: 188.

Genus **EOTAPINOMA*

**Eotapinoma* Dlussky, 1988: 54. Type-species: **Eotapinoma gracilis*, by original designation.

Taxonomic history

**Eotapinoma* in Dolichoderinae, Tapinomini: Dlussky, 1988: 54; Dlussky & Fedoseeva, 1988: 77.

**Eotapinoma* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 91; Bolton, 1994: 26; Bolton, 1995b: 188.

Genus **EURYMYRMEX*

**Eurymyrmex* Zhang, Sun & Zhang, 1994: 167 (English translation: 286). Type-species: **Eurymyrmex geologicus*, by original designation.

Taxonomic history

**Eurymyrmex* in Dolichoderinae: Zhang, Sun & Zhang, 1994: 167.

Genus *FORELIUS*

Forelius Emery, 1888b: 389. Type-species: *Iridomyrmex mccooki*, by monotypy.

Taxonomic history

Forelius in Dolichoderinae: Dalla Torre, 1893: 168; Emery, 1895e: 771; Forel, 1899: 102; Wheeler, W.M. 1910d: 142.

Forelius in Dolichoderidae: Ashmead, 1905b: 384.

Forelius in Dolichoderinae, Tapinomini: Emery, 1913a: 35; Forel, 1917: 248; Wheeler, W.M. 1922a: 690; Donisthorpe, 1943c: 645; all subsequent authors and Jaffe, 1993: 9 (anachronism).

Forelius in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 87; Bolton, 1994: 26.

Junior synonym of *FORELIUS*

Neoforelius Kusnezov, 1953a: 327. Type-species: *Neoforelius tucumanus*, by monotypy.

Taxonomic history

Neoforelius in Dolichoderinae, Tapinomini: Kusnezov, 1953a: 327.

Neoforelius as genus: Kusnezov, 1953a: 327; Kusnezov, 1959: 51; Kusnezov, 1964: 66; Kempf, 1972a: 160; Jaffe, 1993: 9 (anachronism).

Neoforelius as junior synonym of *Forelius*: Shattuck, 1992c: 87; Bolton, 1994: 26; Cuzzo, 2000: 204.

Genus references

Dalla Torre, 1893: 168 (catalogue); Emery, 1913a: 35 (diagnosis, catalogue); Gallardo, 1916a: 74 (Argentina species key); Creighton, 1950a: 343 (North America species, review); Kusnezov, 1957b: 16 (Neotropical species key); Kempf, 1972a: 108, 160 (Neotropical *Forelius*, *Neoforelius* catalogues); Smith, D.R. 1979: 1419 (North America catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 56 (U.S.A., Nevada species key); Brandão, 1991: 344 (catalogue); Shattuck, 1992c: 87 (diagnosis, review of genus); Shattuck, 1994: 91 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 190 (catalogue); Cuzzo, 2000: 197 (diagnosis, all species revision, key).

Genus *FROGGATTELLA*

Froggattella Forel, 1902c: 459. Type-species: *Acantholepis kirbii*, by original designation.

Taxonomic history

Froggattella in Dolichoderinae, Tapinomini: Emery, 1913a: 20; Forel, 1917: 248; Wheeler, W.M. 1922a: 689; Wheeler, W.M. 1936a: 1; all subsequent authors to the following.

Froggattella in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 95; Bolton, 1994: 26.

Genus references

Emery, 1913a: 20 (diagnosis, catalogue); Wheeler, W.M. 1936a: 5 (diagnosis, all species key); Taylor & Brown, D.R. 1985: 95 (Australia catalogue); Taylor, 1987a: 28 (Australia checklist); Shattuck, 1992c: 95 (diagnosis, review of genus); Shattuck, 1994: 97 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 207 (catalogue); Shattuck, 1996b: 43 (diagnosis, all species revision, key); Shattuck, 1999: 71 (Australia synopsis).

Genus *IRIDOMYRMEX*

Iridomyrmex Mayr, 1862: 653 (diagnosis in key), 702. Type-species: *Formica detecta* (junior synonym of *Iridomyrmex purpureus*), by subsequent designation of Bingham, 1903: 297.

Taxonomic history

Iridomyrmex in Formicinae: Mayr, 1862: 653 (in key) [Formicidae]; Mayr, 1865: 10 [Formicidae].

Iridomyrmex in Dolichoderinae: Forel, 1878: 381 [Dolichoderidae]; Dalla Torre, 1893: 168; Emery, 1895e: 771; Forel, 1899: 102; Wheeler, W.M. 1910d: 142.

Iridomyrmex in Dolichoderidae: Ashmead, 1905b: 384.

Iridomyrmex in Dolichoderinae, Tapinomini: Emery, 1913a: 21; Wheeler, W.M. 1915e: 86; Arnold, 1915: 145; Forel, 1917: 248; Wheeler, W.M. 1922a: 689; Carpenter, 1930: 50; all subsequent authors; Jaffe, 1993: 9 (anachronism).

Iridomyrmex in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 101; Bolton, 1994: 26.

Genus references

Roger, 1863b: 13 (catalogue); Mayr, 1863: 424 (catalogue); Mayr, 1865: 10 (diagnosis); Mayr, 1867a: 76 (diagnosis); Forel, 1878: 381 (diagnosis); Cresson, 1887: 257 (U.S.A. catalogue); Dalla Torre, 1893: 168 (catalogue); Forel, 1895b: 467 (India & Sri Lanka species key); Bingham, 1903: 298 (India, Sri Lanka & Burma species key); Emery, 1913a: 21 (diagnosis, catalogue); Arnold, 1915: 145 (diagnosis); Creighton, 1950a: 341 (North America species key); Chapman & Capco, 1951: 188 (Asia checklist); Bernard, 1967: 250

(diagnosis); Kempf, 1972a: 124 (Neotropical catalogue); Smith, D.R. 1979: 1417 (North America catalogue); Taylor & Brown, D.R. 1985: 96 (Australia catalogue); Taylor, 1987a: 30 (Australia, New Caledonia & New Zealand checklist); Shattuck, 1992a: 14 (diagnosis); Shattuck, 1992c: 101 (diagnosis, review of genus); Shattuck, 1993a: 118 (*I. purpureus* group, key); Shattuck, 1993b: 1306 (*I. calvus* group, key); Shattuck, 1994: 99 (catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 217 (catalogue); Shattuck, 1996a: 37 (*I. discors* group); Shattuck, 1998: 303 (*I. conifer* group, key); Shattuck, 1999: 72 (Australia synopsis).

Genus **KOTSHKORKIA*

**Kotshkorkia* Dlussky, 1981: 71. Type-species: **Kotshkorkia laticeps*, by original designation.

Taxonomic history

**Kotshkorkia incertae sedis* in Dolichoderinae: Hölldobler & Wilson, 1990: 17.

**Kotshkorkia incertae sedis* in Formicinae: Hölldobler & Wilson, 1990: 19 (error).

**Kotshkorkia* in Dolichoderinae, Dolichoderini: Dlussky & Fedoseeva, 1988: 78; Shattuck, 1994: 115; Bolton, 1994: 26; Bolton, 1995b: 219.

Genus *LEPTOMYRMEX*

Leptomyrme Mayr, 1862: 652 (diagnosis in key), 695. Type-species: *Formica erythrocephala*, by monotypy.

Taxonomic history

Leptomyrme in Formicinae: Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 7 [Formicidae].

Leptomyrme in Dolichoderinae: Forel, 1878: 386 [Dolichoderidae]; Dalla Torre, 1893: 162; Emery, 1895e: 771; Wheeler, W.M. 1910d: 142.

Leptomyrme in Dolichoderidae: Ashmead, 1905b: 384.

Leptomyrme in Dolichoderinae, Leptomyrmeini: Emery, 1913a: 15 [Leptomyrmicini]; Wheeler, W.M. 1915c: 262 [Leptomyrmicii]; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; all subsequent authors to the following.

Leptomyrme in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 106; Bolton, 1994: 26.

Genus references

Roger, 1863b: 10 (catalogue); Mayr, 1863: 426 (catalogue); Mayr, 1865: 7 (diagnosis); Dalla Torre, 1893: 162 (catalogue); Emery, 1913a: 15 (diagnosis, catalogue); Wheeler, W.M. 1915c: 264 (Australia species key); Wheeler, W.M. 1934b: 80 (all species key); Chapman & Capco, 1951: 186 (Asia checklist); Taylor & Brown, D.R. 1985: 103 (Australia catalogue); Taylor, 1987a: 35 (Australia, New Caledonia checklist); Brandão, 1991: 349 (catalogue); Shattuck, 1992c: 106 (diagnosis, review of genus); Shattuck, 1994: 115 (catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 234 (catalogue); Shattuck, 1999: 74 (Australia synopsis).

Genus **LEPTOMYRMULA*

**Leptomyrula* Emery, 1913a: 16 (footnote). Type-species: **Leptomyrme maravignae*, by monotypy.

Taxonomic history

**Leptomyrula* in Dolichoderinae, Leptomyrmeini: Wheeler, W.M. 1915c: 262 [Leptomyrmicii]; subsequent authors to the following.

**Leptomyrula* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 121; Bolton, 1994: 26; Bolton, 1995b: 235.

Genus *LINEPITHEMA*

Linepithema Mayr, 1866a: 496. Type-species: *Linepithema fusca*, by monotypy.

Taxonomic history

Linepithema in Dolichoderinae: Forel, 1878: 385 [Dolichoderidae]; Dalla Torre, 1893: 170; Emery, 1895e: 771; Wheeler, W.M. 1910d: 142.

Linepithema in Dolichoderidae: Ashmead, 1905b: 384.

Linepithema in Dolichoderinae, Dolichoderini: Emery, 1913a: 14; Forel, 1917: 247; all subsequent authors.

Genus references

Dalla Torre, 1893: 170 (catalogue); Emery, 1913a: 15 (diagnosis, catalogue); Kempf, 1972a: 135 (Neotropical catalogue); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Brandão, 1991: 354 (catalogue); Shattuck, 1992a: 16 (diagnosis); Shattuck, 1992c: 114 (diagnosis, review of genus); Shattuck, 1994: 122 (catalogue); Bolton, 1994: 26 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 246 (catalogue); Shattuck, 1999: 76 (Australia synopsis).

Genus *LIOMETOPUM*

Liometopum Mayr, 1861: 38. Type-species: *Formica microcephala*, by monotypy.

Taxonomic history

Liometopum in Formicinae: Mayr, 1861: 38 [Formicidae]; Mayr, 1862: 653 (in key) [Formicidae]; Mayr, 1865: 9 [Formicidae]; André, 1874: 168 [Formicidae].

Liometopum in Dolichoderinae: Forel, 1878: 383 [Dolichoderidae]; Emery & Forel, 1879: 454 [Dolichoderidae]; Dalla Torre, 1893: 163; Emery, 1895e: 771; Forel, 1899: 104; Wheeler, W.M. 1910d: 142.

Liometopum in Dolichoderidae: Ashmead, 1905b: 384.

Liometopum in Dolichoderinae, Tapinomini: Emery, 1913a: 19; Wheeler, W.M. 1915e: 95; Forel, 1917: 248; Bondroit, 1918: 87; Wheeler, W.M. 1922a: 688; Carpenter, 1930: 46; subsequent authors and

Jaffe, 1993: 9 (anachronism).

Liometopum in Dolichoderinae, Liometopini: Dlussky & Fedoseeva, 1988: 77.

Liometopum in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 121; Bolton, 1994: 26.

Genus references

Roger, 1863b: 14 (catalogue); Mayr, 1863: 427 (catalogue); Mayr, 1865: 9 (diagnosis); Forel, 1878: 383 (diagnosis); André, 1882b: 220 (Europe & Algeria species); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 162 (catalogue); Bingham, 1903: 289 (diagnosis); Wheeler, W.M. 1905c: 322 (North America species); Emery, 1913a: 19 (diagnosis, catalogue); Creighton, 1950a: 338 (North America species key); Chapman & Capco, 1951: 192 (Asia checklist); Gregg, 1963: 438 (U.S.A., Colorado species key); Bernard, 1967: 253 (diagnosis); Smith, D.R. 1979: 1417 (North America catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 55 (U.S.A., Nevada species key); Shattuck, 1992c: 121 (diagnosis, review of genus); Shattuck, 1994: 128 (catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 247 (catalogue).

Genus *LOWERIELLA*

Loweriella Shattuck, 1992c: 126. Type-species: *Loweriella boltoni*, by original designation.

Taxonomic history

Loweriella in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 126; Shattuck, 1994: 130; Bolton, 1994: 26; Bolton, 1995b: 248.

Genus **MIOMYRMEX*

**Miomymex* Carpenter, 1930: 51. Type-species: **Formica impacta*, by original designation.

Taxonomic history

**Miomymex* in Dolichoderinae, Miomyrmecini: Carpenter, 1930: 51.

**Miomymex* in Dolichoderinae, Tapinomini: Hölldobler & Wilson, 1990: 17.

**Miomymex* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 131; Bolton, 1994: 26; Bolton, 1995b: 258.

Genus *OCHETELLUS*

Ochetellus Shattuck, 1992a: 16. Type-species: *Hypoclinea glabra*, by original designation.

Taxonomic history

Ochetellus in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 129; Shattuck, 1994: 131; Bolton, 1994: 26; Bolton, 1995a: 1051; Bolton, 1995b: 293.

Genus references

Shattuck, 1992c: 129 (diagnosis, review of genus); Shattuck, 1999: 77 (Australia synopsis).

Genus *PAPYRIUS*

Papyrius Shattuck, 1992a: 17. Type-species: *Iridomyrmex nitida*, by original designation.

Taxonomic history

Papyrius in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 134; Shattuck, 1994: 134; Bolton, 1994: 26; Bolton, 1995a: 1051; Bolton, 1995b: 311.

Genus references

Shattuck, 1992c: 134 (diagnosis, review of genus); Shattuck, 1999: 79 (Australia synopsis).

Genus **PETRAEOMYRMEX*

**Petraeomyrmex* Carpenter, 1930: 55. Type-species: **Petraeomyrmex minimus*, by original designation.

Taxonomic history

**Petraeomyrmex incertae sedis* in Dolichoderinae: Carpenter, 1930: 55.

**Petraeomyrmex* in Dolichoderinae, Tapinomini: Hölldobler & Wilson, 1990: 17.

**Petraeomyrmex* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 135; Bolton, 1994: 26; Bolton, 1995b: 316.

Genus *PHILIDRIS*

Philidris Shattuck, 1992a: 17. Type-species: *Formica cordata*, by original designation.

Taxonomic history

Philidris in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 140; Shattuck, 1994: 135; Bolton, 1994: 26; Bolton, 1995a: 1051; Bolton, 1995b: 334.

Genus references

Shattuck, 1992c: 140 (diagnosis, review of genus); Shattuck, 1999: 80 (Australia synopsis).

Genus **PITYOMYRMEX*

**Pityomyrmex* Wheeler, W.M. 1915e: 98. Type-species: **Pityomyrmex tornquisti*, by monotypy.

Taxonomic history

**Pityomyrmex* in Dolichoderinae, **Pityomyrmecini*: Wheeler, W.M. 1915e: 98; Dlussky & Fedoseeva, 1988: 78.

**Pityomyrmex* in Formicinae, **Pityomyrmecini*: Donisthorpe, 1943c: 684 (error).

**Pityomyrmex* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 139; Bolton, 1994: 26; Bolton, 1995b: 334.

Genus *PROTAZTECA

**Protazteca* Carpenter, 1930: 41. Type-species: **Protazteca elongata*, by original designation.

Taxonomic history

**Protazteca* in Dolichoderinae, Tapinomini: Carpenter, 1930: 41; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 17.

**Protazteca* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 139; Bolton, 1994: 26; Bolton, 1995b: 369.

Genus TAPINOMA

Tapinoma Foerster, 1850a: 43. Type-species: *Tapinoma collina* (junior synonym of *Tapinoma erraticum*), by monotypy.

Taxonomic history

Tapinoma in Formicidae: Smith, F. 1858b: 55.

Tapinoma in Formicinae: Mayr, 1855: 372 [Formicidae]; Mayr, 1861: 41 [Formicidae]; Mayr, 1862: 653 (in key) [Formicidae]; Mayr, 1865: 10 [Formicidae]; André, 1874: 168 [Formicidae]; André, 1881: 63 [Formicidae].

Tapinoma in Dolichoderinae: Forel, 1878: 385 [Dolichoderidae]; Emery & Forel, 1879: 454 [Dolichoderidae]; Forel, 1895a: 109 [Dolichoderidae]; Dalla Torre, 1893: 164; Emery, 1895e: 771; Forel, 1899: 101; Wheeler, W.M. 1910d: 142.

Tapinoma in Dolichoderidae: Ashmead, 1905b: 384.

Tapinoma in Dolichoderinae, Tapinomini: Emery, 1913a: 38; Arnold, 1915: 152; Forel, 1917: 248; Bondroit, 1918: 89; Wheeler, W.M. 1922a: 690; subsequent authors and Jaffe, 1993: 9 (anachronism).

Tapinoma in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 146; Bolton, 1994: 26.

Junior synonyms of *TAPINOMA*

Micromyrma Dufour, 1857: 60. Type-species: *Micromyrma pygmaea*, by monotypy.

Taxonomic history

[Type-species not *Formica erratica*, unjustified subsequent designation by Wheeler, W.M. 1911b: 167.]

Micromyrma as subgenus of *Tapinoma*: Menozzi, 1925a: 19; Santschi, 1928d: 472; Chapman & Capco, 1951: 192.

Micromyrma as junior synonym of *Tapinoma*: Mayr, 1863: 455; Forel, 1878: 385; Emery & Forel, 1879: 454; Dalla Torre, 1893: 164; Emery, 1913a: 38; Wheeler, W.M. 1922a: 923; Smith, M.R. 1951: 837; Shattuck, 1992c: 146; Bolton, 1994: 26.

Semonius Forel, 1910c: 21. Type-species: *Semonius schultzei*, by monotypy.

Taxonomic history

Semonius in Dolichoderinae: Wheeler, W.M. 1910d: 142.

Semonius in Dolichoderinae, Tapinomini: Emery, 1913a: 44; Arnold, 1915: 157; Forel, 1917: 247; Wheeler, W.M. 1922a: 688; all subsequent authors.

Semonius as junior synonym of *Tapinoma*: Shattuck, 1992c: 146; Bolton, 1994: 26.

Tapinoptera Santschi, 1925e: 348 [as subgenus of *Tapinoma*]. Type-species: *Tapinoma vexatum*, by monotypy.

Taxonomic history

Tapinoptera as junior synonym of *Tapinoma*: Shattuck, 1992c: 146; Bolton, 1994: 26.

Zatapinoma Wheeler, W.M. 1928a: 20. Type-species: *Zatapinoma annandalei*, by original designation.

Taxonomic history

Zatapinoma in Dolichoderinae, Tapinomini: Donisthorpe, 1943d: 737; all subsequent authors.

Zatapinoma as junior synonym of *Tapinoma*: Shattuck, 1992c: 146; Bolton, 1994: 26.

Neoclystopsenella Kurian, 1955: 133. Type-species: *Neoclystopsenella luffae*, by monotypy.

Taxonomic history

Neoclystopsenella in Bethyridae: Kurian, 1955: 133.

Neoclystopsenella in Dolichoderinae: Brown, 1988a: 337.

Neoclystopsenella as junior synonym of *Tapinoma*: Brown, 1988a: 337; Shattuck, 1992c: 146; Bolton, 1994: 26.

Genus references

Mayr, 1855: 372 (diagnosis); Smith, F. 1858b: 55 (diagnosis); Roger, 1863b: 13, 14 (*Tapinoma*, *Micromyrma* catalogues); Mayr, 1863: 455 (catalogue); Mayr, 1865: 10 (diagnosis); Mayr, 1867a: 78 (diagnosis); André, 1882b: 222 (Europe & Algeria species key); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 164 (catalogue); Bingham, 1903: 304 (India, Sri Lanka & Burma species key); Emery, 1913a: 38 (diagnosis, catalogue); Emery, 1913a: 44 (*Semonius* diagnosis, catalogue); Arnold, 1915: 152, 157 (diagnosis, South Africa species key, *Semonius* diagnosis); Wheeler, W.M. 1922a: 923, 927 (Afrotropical *Tapinoma*, *Semonius* catalogues); Wheeler, W.M. 1922a: 1034 (Malagasy catalogue); Emery, 1925c: 63 (Palaeartic species key); Kuznetsov-Ugamsky, 1927c: 33 (Turkestan species key); Smith, M.R. 1928: 311 (North America species key); Kratochvíl, Novák & Snoflák, 1944: 79 (Czechoslovakia species key); Creighton, 1950a: 352 (North America species key); Chapman & Capco, 1951: 192, 196 (Asia *Semonius*, *Tapinoma*, *Zatapinoma* checklists); Bernard, 1967: 254 (diagnosis, Western Europe species key); Boven, 1970: 24 (Netherlands species key); Kempf, 1972a: 246 (Neotropical catalogue); Tarbinsky, 1976: 118 (Kirgizstan species key); Kutter, 1977b: 178 (Switzerland species key); Arnol'di & Dlussky, 1978: 547 (former European U.S.S.R. species key); Collingwood, 1978: 87 (Iberian Peninsula species key); Smith, D.R. 1979: 1421 (North America catalogue); Schembri & Collingwood, 1981: 421 (Malta species key);

Gösswald, 1985: 317 (Germany species key); Taylor & Brown, D.R. 1985: 106 (Australia catalogue); Agosti & Collingwood, 1987: 279 (Balkans species key); Taylor, 1987a: 77 (Australia, New Caledonia & New Zealand checklist); Dlussky, Soyunov & Zabelin, 1990: 168 (Turkmenistan species key); Brandão, 1991: 380 (Neotropical catalogue); Shattuck, 1992c: 146 (diagnosis, review of genus); Arakelian, 1994: 72 (Armenia species key); Shattuck, 1994: 140 (catalogue); Bolton, 1995a: 1053 (census); Bolton, 1995b: 399 (catalogue); Wu, J. & Wang, 1995: 116 (China species key); Collingwood & Agosti, 1996: 360 (Saudi Arabia species key); Seifert, 1996: 165 (Central Europe species key); Skinner & Allen, 1996: 40 (Britain species key); Collingwood & Prince, 1998: 20 (Portugal species key); Shattuck, 1999: 81 (Australia synopsis); Zhou, 2001: 151 (China, Guangxi species key); Czechowski, Radchenko & Czechowska, 2002: 135 (Poland species key).

Genus *TECHNOMYRMEX*

Technomyrmex Mayr, 1872: 147. Type-species: *Technomyrmex strenuus*, by monotypy.

Taxonomic history

Technomyrmex in Dolichoderinae: Forel, 1878: 380 [Dolichoderidae]; Dalla Torre, 1893: 166; Emery, 1895e: 771; Wheeler, W.M. 1910d: 142.

Technomyrmex in Dolichoderinae, Tapinomini: Emery, 1913a: 42; Arnold, 1915: 147; Forel, 1917: 248; Wheeler, W.M. 1922a: 690; subsequent authors and Jaffe, 1993: 9 (anachronism).

Technomyrmex in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 153; Bolton, 1994: 26.

Junior synonyms of *TECHNOMYRMEX*

Engramma Forel, 1905b: 180. Type-species: *Engramma lujae*, by monotypy.

Taxonomic history

Engramma in Dolichoderinae: Wheeler, W.M. 1910d: 142.

Engramma in Dolichoderinae, Tapinomini: Emery, 1913a: 38; Forel, 1917: 248; Wheeler, W.M. 1922a: 690; all subsequent authors.

Engramma as junior synonym of *Technomyrmex*: Shattuck, 1992c: 153; Bolton, 1994: 26.

Aphantolepis Wheeler, W.M. 1930a: 44. Type-species: *Aphantolepis quadricolor*, by monotypy.

Taxonomic history

Aphantolepis in Formicinae, Lasiini: Wheeler, W.M. 1930a: 44.

Aphantolepis in Formicinae, Prenolepidini: Donisthorpe, 1943c: 624.

Aphantolepis as junior synonym of *Technomyrmex*: Brown, 1953d: 5; Shattuck, 1992c: 153; Bolton, 1994: 26.

Genus references

Forel, 1878: 380 (diagnosis); Dalla Torre, 1893: 166 (catalogue); Bingham, 1903: 301 (India, Sri Lanka & Burma species key); Emery, 1913a: 38 (*Engramma* diagnosis, catalogue); Emery, 1913a: 42 (diagnosis, catalogue); Arnold, 1915: 147 (diagnosis, South Africa species key); Wheeler, W.M. 1922a: 201, 208, 209 (*Engramma*, *Tapinoma*, *Technomyrmex* diagnoses); Wheeler, W.M. 1922a: 202 (*Engramma* species key); Wheeler, W.M. 1922a: 922, 925 (Afrotropical *Engramma*, *Technomyrmex* catalogues); Wheeler, W.M. 1922a: 1034 (Malagasy catalogue); Taylor & Brown, D.R. 1985: 106 (Australia catalogue); Taylor, 1987a: 77 (Australia, New Caledonia & New Zealand checklist); Shattuck, 1992c: 153 (diagnosis, review of genus); Shattuck, 1994: 156 (catalogue); Bolton, 1995a: 1053 (census); Bolton, 1995b: 402 (catalogue); Wu, J. & Wang, 1995: 118 (China species key); Collingwood & Agosti, 1996: 360 (Saudi Arabia species key); Shattuck, 1999: 83 (Australia synopsis); Zhou, 2001: 158 (China, Guangxi species key).

Genus *TURNERIA*

Turneria Forel, 1895c: 419. Type-species: *Turneria bidentata*, by monotypy.

Taxonomic history

Turneria in Dolichoderidae: Ashmead, 1905b: 384.

Turneria in Dolichoderinae: Wheeler, W.M. 1910d: 142.

Turneria in Dolichoderinae, Tapinomini: Emery, 1913a: 21; Forel, 1917: 248; Wheeler, W.M. 1922a: 689; all subsequent authors.

Turneria in Dolichoderinae, Dolichoderini: Shattuck, 1992c: 161; Bolton, 1994: 26.

Genus references

Emery, 1913a: 21 (diagnosis, catalogue); Mann, 1919: 362 (all species key); Chapman & Capco, 1951: 196 (Asia checklist); Taylor & Brown, D.R. 1985: 107 (Australia catalogue); Taylor, 1987a: 80 (Australia checklist); Shattuck, 1990: 101 (diagnosis, all species revision, key); Shattuck, 1992c: 161 (diagnosis, review of genus); Shattuck, 1994: 169 (catalogue); Bolton, 1995a: 1053 (census); Bolton, 1995b: 422 (catalogue); Shattuck, 1999: 84 (Australia synopsis).

Genus **ZHERICHINIUS*

**Zherichinius* Dlussky, 1988: 57. Type-species: **Zherichinius horribilis*, by original designation.

Taxonomic history

**Zherichinius* in Dolichoderinae, **Zherichiniini*: Dlussky, 1988: 57; Dlussky & Fedoseeva, 1988: 77.

**Zherichinius* in Dolichoderinae, Dolichoderini: Shattuck, 1994: 170; Bolton, 1994: 26; Bolton, 1995b: 427.

SUBFAMILY FORMICINAE

Subfamily FORMICINAE

Formicariae Latreille, 1809: 124. Type-genus: *Formica*.

Taxonomic history

Formicinae as group name: Latreille, 1809: 124 [Formicariae]; Lepeletier de Saint-Fargeau, 1835: 197 [Formicites]; Nylander, 1846: 877 [Formicae].

Formicinae as family: Smith, F. 1858b: 1 [Formicidae]; Smith, F. 1861: 36 [Formicidae]; Smith, 1871a: 302 [Formicidae]; André, 1882a: 125 [Formicidae]; Saunders, 1896: 18 [Formicidae]; Novák & Sadil, 1941: 97 [Formicidae]; Bernard, 1951: 1073 [Formicidae]; Bernard, 1953: 256 [Formicidae].

Formicinae as tribe of Formicidae: André, 1874: 167 [Formicidae].

Formicinae as subfamily of Formicidae: Mayr, 1855: 286, 299 [Formicidae]; Mayr, 1861: 21 [Formicidae]; Mayr, 1862: 651 [Formicidae]; Mayr, 1865: 6 [Formicidae]; Mayr, 1868b: 24 [Formicidae]; Forel, 1870: 307 [Formicidae]; Forel, 1874: 21 [Formicidae]; Emery, 1877a: 70 [Formicidae]; André, 1881: 54 [Formicidae]; Ashmead, 1905b: 384; Bondroit, 1918: 17 [Formicidae]; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 210; Emery, 1925b: 2; Karavaiev, 1936: 172; Clark, 1951: 16; Brown, 1954b: 29; Kempf, 1972a: 266; Brown, 1973b: 169; all subsequent authors. [*Taxonomy*, p. 20.]

Tribes: Camponotini, Formicini, Gesomyrmecini, Gigantiopini, Lasiini, Melophorini, Myrmecorhynchini, Myrmoteratini, Notostigmatini, Oecophyllini, Plagiolepidini.

Genera *incertae sedis* in Formicinae: **Imhoffia*, **Kyromyrmica*, **Leucotaphus*, **Protrechina*, **Tylolasius*.

Collective group name in Formicinae: **Formicites*.

Subfamily references, world

Mayr, 1862: 651 (genera key); Mayr, 1865: 6 (diagnosis); Handlirsch, 1907: 859 (*fossil taxa catalogue); Dalla Torre, 1893: 171 (catalogue); Emery, 1895e: 772 (synoptic classification); Emery, 1896b: 187 (genera key); Wheeler, W.M. 1910d: 143 (diagnosis); Forel, 1912f: 88 (tribes key); Forel, 1917: 248 (synoptic classification); Arnold, 1920: 551 (diagnosis); Forel, 1921: 139 (diagnosis); Wheeler, W.M. 1922a: 210, 691 (diagnosis, tribes key); Emery, 1925b: 2 (diagnosis, tribe key, catalogue); Brown & Nutting, 1950: 127 (venation, phylogeny); Eisner, 1957: 465 (proventriculus morphology); Hung & Brown, 1966: 198 (gastric apex, structure); Bernard, 1967: 267 (diagnosis); Gotwald, 1969: 120 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 41 (diagnosis); Brown, 1973b: 169 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 62 (larvae, review & synthesis); Snelling, 1981: 402 (synoptic classification); Wheeler, G.C. & Wheeler, J. 1985: 258 (synoptic classification); Billen, 1986: 173 (Dufour's gland); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 9 (synoptic classification, genera keys); Agosti, 1991: 295 (genus group diagnoses); Shattuck, 1992b: 201 (phylogeny); Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 42 (diagnosis, synoptic classification, genera keys); Bolton, 1995a: 1039 (census); Bolton, 1995b: 11 (catalogue); Wenseleers, Schoeters, *et al.*, 1998: 121 (cloacal gland).

Regional and national faunas with keys

Mayr, 1855: 299 (Austria); Mayr, 1861: 25 (Europe); Mayr, 1868b: 25 (*Baltic Amber); André, 1874: 167 (Europe); Forel, 1874: 22 (Switzerland); Saunders, E. 1880: 203 (Britain); André, 1882a: 126 (Europe & Algeria); Provancher, 1887: 225 (Canada); Cresson, 1887: 94 (U.S.A. genera); Nasonov, 1889: 50 (Russia); Forel, 1891b: 8 (Madagascar genera); Lameere, 1892: 62 (Belgium); Forel, 1892g: 220 (India & Sri Lanka); Bingham, 1903: 308 (India, Sri Lanka & Burma); Ruzsky, 1905: 100 (Russian Empire); Wassmann, 1906: 7 (Luxemburg); Bondroit, 1910: 481 (Belgium); Wheeler, W.M. 1910d: 560 (North America genera); Stitz, 1914: 80 (Central Europe); Gallardo, 1915: 35 (Argentina genera); Forel, 1915c: 45 (Switzerland); Donisthorpe, 1915: 184 (Britain); Emery, 1916b: 216 (Italy); Wheeler, W.M. 1916g: 590 (U.S.A., Connecticut); Bondroit, 1918: 17 (France & Belgium); Arnold, 1920: 552 (South Africa); Kutter, 1920: 134 (Switzerland); Soudek, 1922: 61 (Czechoslovakia); Lomnicki, 1925: 160 (Poland); Stäcker, 1926: 118, 146 (Netherlands); Karavaiev, 1927a: 273 (Ukraine); Donisthorpe, 1927: 205 (Britain); Menozzi & Russo, 1930: 172 (Dominican Republic); Arnol'di, 1933b: 601 (Russia); Menozzi, 1933a: 90 (Israel genera); Karavaiev, 1936: 173 (Ukraine); Smith, M.R. 1937: 865 (Puerto Rico); Stitz, 1939: 230 (Germany); Kratochvíl, 1941: 97 (Central Europe); Novák & Sadil, 1941: 97 (Central Europe); Cole, 1942: 373 (U.S.A., Utah); Smith, M.R. 1943b: 309 (U.S.A., males); Buren, 1944: 292 (U.S.A., Iowa); Holgersen, 1943: 173 (Norway); Holgersen, 1944: 199 (Norway); Smith, M.R. 1947c: 599 (U.S.A. genera); Boven, 1947: 181 (Belgium); Creighton, 1950a: 355 (North America); Kusnezov, 1956: 31 (Argentina); Brown, 1958c: 42 (New Zealand); Boven, 1959: 11 (Netherlands); Gregg, 1963: 447 (U.S.A., Colorado); Wheeler, G.C. & Wheeler, J. 1963: 160 (U.S.A., North Dakota); Collingwood, 1964: 104 (Britain); Bernard, 1967: 268 (Western Europe); Wilson & Taylor, 1967: 17 (Polynesia); Boven, 1970: 26 (Netherlands); Kempf, 1972a: 266 (Neotropical, synoptic classification); Bolton, 1973a: 329 (West Africa genera); Bolton & Collingwood, 1975: 3 (Britain); Snelling & Hunt, 1976: 104 (Chile); Tarbinsky, 1976: 126 (Kirgizstan); Boven, 1977: 126 (Belgium); Kutter, 1977b: 183 (Switzerland); Arnol'di & Dlussky, 1978: 548 (former European U.S.S.R.); Collingwood, 1978: 88 (Iberian Peninsula); Collingwood, 1979: 85 (Fennoscandia & Denmark); Greenslade, 1979: 32 (South Australia genera); Schembri & Collingwood, 1981: 436 (Malta); Prins, 1983: 8 (Southern Africa genera); Allred, 1982: 444 (U.S.A., Utah); Verhaeghe, Deligne, *et al.*, 1984: 106 (Belgium genera); Baroni Urbani, 1984: 81 (Neotropical genera); Gösswald, 1985: 263 (Germany); Collingwood, 1985: 273 (Saudi Arabia);

Wheeler, G.C. & Wheeler, J. 1986b: 58 (U.S.A., Nevada); Nilsson & Douwes, 1987: 68 (Norway); Agosti & Collingwood, 1987: 279 (Balkans); Dlussky, Soyunov & Zabelin, 1990: 124 (Turkmenistan); Kupyanskaya, 1990: 162 (Far Eastern Russia); Morisita, Kubota, Onoyama, *et al.*, 1991: 10 (Japan); Atanasov & Dlussky, 1992: 49 (Bulgaria); Shattuck, 1992b: 199 (higher classification, phylogeny); Lattke, in Jaffe, 1993: 150 (Neotropical genera); Arakelian, 1994: 76 (Armenia); Wu, J. & Wang, 1995: 125 (China genera); Kupyanskaya, 1995: 332 (Far Eastern Russia); Collingwood & Agosti, 1996: 361 (Saudi Arabia); Seifert, 1996: 166 (Central Europe); Skinner & Allen, 1996: 41 (Britain); Collingwood & Prince, 1998: 21 (Portugal); Shattuck, 1999: 25, 86 (Australia genera, synopsis); Andersen, 2000: 68 (northern Australia genera); Zhou, 2001: 165 (China, Guangxi); Czechowski, Radchenko & Czechowska, 2002: 147 (Poland); Aktaş & Radchenko, 2002: 54 (Turkey genera); Yoshimura & Onoyama, 2002: 425 (Japan genera, males key); Imai, Kihara, Kondoh, Kubota *et al.* 2003: 33 (Japan).

Tribe LASIINI

Lasiini Ashmead, 1905b: 384. Type-genus: *Lasius*.

Taxonomic history

Lasiini as junior synonym of Formicini: Wheeler, W.M. 1922a: 698; Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1985: 258; Hölldobler & Wilson, 1990: 18.

Lasiini as tribe of Formicinae: Ashmead, 1905b: 384; Emery, 1925b: 212; Karavaiev, 1936: 192; Dlussky & Fedoseeva, 1988: 77; Jaffe 1993: 12; Bolton, 1994: 50. [*Taxonomy*, p. 21.]

Junior synonym of LASIINI

Acanthomyopsini Donisthorpe, 1943c: 618. Type-genus: *Acanthomyops*.

Taxonomic history

Acanthomyopsini as tribe of Formicinae: Donisthorpe, 1943c: 618; Donisthorpe, 1947a: 593; Donisthorpe, 1947b: 192; Donisthorpe, 1948c: 604; Donisthorpe, 1949b: 756; Donisthorpe, 1950: 1063.

Acanthomyopsini as junior synonym of Lasiini: Bolton, 1994: 50.

Genera: *Acanthomyops*, *Acropyga*, *Anoplolepis*, *Cladomyrma*, *Lasiophanes*, *Lasius*, *Myrmecocystus*, *Prolasius*, *Stigmacros*, *Teratomyrmex*.

Tribe references

Wheeler, W.M. 1922a: 940, 1037 (Afrotropical, Malagasy catalogues); Emery, 1925b: 212 (diagnosis, genera key, catalogue); Hölldobler & Wilson, 1990: 18 (synoptic classification); Brandão, 1991: 393 (Neotropical synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1039 (census); Bolton, 1995b: 12 (catalogue).

Genera of Lasiini

Genus ACANTHOMYOPS

Acanthomyops Mayr, 1862: 652 (diagnosis in key), 699. Type-species: *Formica clavigera*, by monotypy.

Taxonomic history

Acanthomyops in Formicinae: Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 8 [Formicidae].

Acanthomyops in Camponotinae, Formicini: Wheeler, W.M. 1910d: 143; Forel, 1917: 249.

Acanthomyops in Formicinae, Formicini: Wheeler, W.M. 1922a: 698; Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1976: 101; Wheeler, G.C. & Wheeler, J. 1985: 258; Jaffe, 1993: 14.

Acanthomyops in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 618.

Acanthomyops in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Acanthomyops in Formicinae, Lasiini: Ashmead, 1905b: 384 (misspelled as *Acanthomyrmex*); Emery, 1925b: 236; all subsequent authors except for those above.

Acanthomyops as junior synonym of *Lasius*: Mayr, 1866b: 888; Dalla Torre, 1893: 181.

Acanthomyops as subgenus of *Formicina*: Emery, 1916a: 11; Forel, 1917: 249.

Acanthomyops as subgenus of *Lasius*: Emery, 1893e: 642; Wheeler, W.M. 1910d: 143; Wheeler, W.M. 1916f: 172; Wheeler, W.M. 1922a: 698; Emery, 1925b: 236; Buren, 1950: 188; Smith, M.R. 1951: 852; Gregg, 1963: 453.

Acanthomyops as genus: Mayr, 1862: 699; Donisthorpe, 1927: 209; Donisthorpe, 1943c: 618; Creighton, 1950a: 426; Smith, M.R. 1958: 150; Wing, 1968: 47; Bolton, 1994: 50.

Genus references

Roger, 1863b: 11 (catalogue); Mayr, 1863: 394 (catalogue); Mayr, 1865: 8 (diagnosis); Emery, 1925b: 236 (*Lasius* (*Acanthomyops*) diagnosis, catalogue); Creighton, 1950a: 428 (North America species key); Buren, 1950: 188 (queens, key); Wheeler, G.C. & Wheeler, J. 1963: 195 (U.S.A., North Dakota species key); Wing, 1968: 53 (diagnosis, all species revision, key); Smith, D.R. 1979: 1440 (North America catalogue); Allred, 1982: 444 (U.S.A., Utah species key); Wheeler, G.C. & Wheeler, J. 1986b: 68 (U.S.A., Nevada species key); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995b: 53 (catalogue).

Genus ACROPYGA tribal transfer

Acropyga Roger, 1862a: 242. Type-species: *Acropyga acutiventris*, by monotypy.

Taxonomic history

Acropyga in Camponotinae: Forel, 1878: 379 [Camponotidae]; Dalla Torre, 1893: 174.

Acropyga in Camponotinae, Plagiolepidini: Forel, 1886b: 212; Forel, 1893a: 165; Forel, 1895a: 107; Emery, 1895e: 771; Wheeler, W.M. 1910d: 143; Forel, 1912f: 88; Forel, 1917: 249.

Acropyga in Formicinae, Plagiolepidini: Ashmead, 1905b: 384; Wheeler, W.M. 1922a: 695; Emery, 1925b: 27; all subsequent authors except the two following.

Acropyga incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Acropyga in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Acropyga as junior synonym of *Plagiolepis*: Mayr, 1863: 394.

Acropyga as genus: Roger, 1862a: 242; Smith, F. 1871: 319; Forel, 1878: 379; all subsequent authors.

Subgenera of *ACROPYGA* include the nominal plus the following.

Subgenus *ACROPYGA* (*RHIZOMYRMA*)

Rhizomyrma Forel, 1893f: 347 [as subgenus of *Acropyga*]. Type-species: *Acropyga* (*Rhizomyrma*) *goeldii*, by subsequent designation of Wheeler, W.M. 1911b: 172.

Taxonomic history

Rhizomyrma in Camponotinae, Plagiolepidini: Forel, 1893f: 347; Wheeler, W.M. 1910d: 143; Forel, 1912f: 89; Forel, 1917: 249.

Rhizomyrma in Formicinae, Plagiolepidini: Wheeler, W.M. 1922a: 695.

Rhizomyrma as genus: Emery, 1906c: 182; Forel, 1912f: 89; Wheeler, W.M. 1910d: 143; Bruch, 1914: 227; Wheeler, W.M. & Mann, 1914: 46; Forel, 1917: 249; Wheeler, W.M. 1922a: 695; Kusnezov, 1956: 33; Kusnezov, 1964: 68.

Rhizomyrma as junior synonym of *Acropyga*: Brown, 1973b: 184 [provisional]; Hölldobler & Wilson, 1990: 18.

Rhizomyrma as subgenus of *Acropyga*: Forel, 1893f: 347; Forel, 1912g: 771; Emery, 1925b: 29; subsequent authors except the above; Bolton, 1994: 51.

Subgenus *ACROPYGA* (*ATOPODON*)

Atopodon Forel, 1912g: 771 [as subgenus of *Acropyga*]. Type-species: *Acropyga* (*Atopodon*) *inezae*, by subsequent designation of Wheeler, W.M. 1913a: 79.

Taxonomic history

[*Atopodon* also described as new by Forel, 1913d: 100.]

Atopodon in Camponotinae, Plagiolepidini: Forel, 1917: 249.

Atopodon in Formicinae, Plagiolepidini: Wheeler, W.M. 1922a: 695.

Atopodon as subgenus of *Rhizomyrma*: Forel, 1917: 249.

Atopodon as genus: Wheeler, W.M. 1922a: 695.

Atopodon as junior synonym of *Acropyga*: Brown, 1973b: 178 [provisional]; Hölldobler & Wilson, 1990: 18.

Atopodon as subgenus of *Acropyga*: Forel, 1912g: 771; Forel, 1913d: 100; Emery, 1925b: 30; subsequent authors except the above; Bolton, 1994: 51.

Subgenus *ACROPYGA* (*MALACOMYRMA*)

Malacomyrma Emery, 1922b: 109 [as subgenus of *Acropyga*]. Type-species: *Acropyga silvestrii*, by monotypy.

Taxonomic history

Malacomyrma in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Malacomyrma as junior synonym of *Acropyga*: Brown, 1973b: 182 [provisional]; Hölldobler & Wilson, 1990: 18.

Malacomyrma as subgenus of *Acropyga*: Emery, 1922b: 109; Emery, 1925b: 30; subsequent authors except the above; Bolton, 1994: 51.

Genus references

Roger, 1863b: 11 (catalogue); Forel, 1878: 379 (diagnosis); Dalla Torre, 1893: 174 (catalogue); Bingham, 1903: 332 (diagnosis); Wheeler, W.M. 1922a: 928 (Afrotropical catalogue); Emery, 1925b: 27 (diagnosis, subgenera key, catalogue); Emery, 1925b: 29, 30 (*A. (Rhizomyrma, Atopodon & Malacomyrma)* diagnoses, catalogues); Weber, 1944: 91 (Neotropical *A. (Rhizomyrma)* species key); Chapman & Capco, 1951: 210 (Asia checklist); Kempf, 1972a: 16 (Neotropical catalogue); Smith, D.R. 1979: 1423 (North America catalogue); Taylor & Brown, D.R. 1985: 107 (Australia catalogue); Taylor, 1987a: 5 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1991: 14 (Japan species key); Wang, C. & Wu, 1992: 227 (China species key); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 57 (catalogue); Shattuck, 1999: 86 (Australia synopsis); Terayama, Fellowes & Zhou, 2002: 22 (diagnosis, East Asian species key).

Genus *ANOPLOLEPIS* tribal transfer

Anoplolepis Santschi, 1914a: 123 [as subgenus of *Plagiolepis*]. Type-species: *Formica longipes* (junior primary homonym in *Formica*; *Anoplolepis gracilipes* is first available replacement name), by monotypy.

Taxonomic history

Anoplolepis in Camponotinae, Plagiolepidini: Forel, 1917: 249; Arnold, 1922: 593.

Anoplolepis in Formicinae, Plagiolepidini: Wheeler, W.M. 1922a: 696; Emery, 1925b: 16; Santschi, 1926a: 13; all subsequent authors except the following.

Anoplolepis in Formicinae [part in *Oecophylla* genus group, part in *Pseudolasius* genus group]: Agosti, 1991: 295, 296.

Anoplolepis as subgenus of *Plagiolepis*: Santschi, 1914a: 123; Forel, 1917: 249; Arnold, 1922: 593; Wheeler, W.M. 1922a: 696.

Anoplolepis as genus: Emery, 1925b: 16; Santschi, 1926a: 13; all subsequent authors.

Junior synonym of *ANOPOLEPIS*

Zealleyella Arnold, 1922: 579 (diagnosis in key) [as subgenus of *Plagiolepis*]. Type-species: *Formica custodiens*, by subsequent designation of Santschi, 1926a: 14. Syn. n. [Appendix 1.1, p. 267.]

Taxonomic history

Zealleyella as subgenus of *Plagiolepis*: Arnold, 1922: 579.

Zealleyella as subgenus of *Anoplolepis*: Santschi, 1926a: 14.

Zealleyella as junior synonym of *Anoplolepis*: Brown, 1973b: 185 [provisional].

Genus references

Arnold, 1922: 593 (South Africa, species); Wheeler, W.M. 1922a: 931, 1036 (Afrotropical, Malagasy catalogues); Emery, 1925b: 16 (diagnosis, catalogue); Santschi, 1926a: 13 (subgenera diagnoses); Santschi, 1937b: 83 (subgenera key); Chapman & Capco, 1951: 213 (Asia checklist); Kempf, 1972a: 22 (Neotropical catalogue); Prins, 1982: 235 (South Africa *A. (Zealleyella)* partial revision, key); Taylor & Brown, D.R. 1985: 108 (Australia catalogue); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 66 (catalogue); Collingwood & Agosti, 1996: 362 (Saudi Arabia species key); Shattuck, 1999: 88 (Australia synopsis).

Genus *CLADOMYRMA* tribal transfer

Cladomyrma Wheeler, W.M. 1920: 53. Type-species: *Aphomomyrmex hewitti*, by original designation.

Taxonomic history

Cladomyrma in Formicinae, Dimorphomyrmecini: Emery, 1925b: 45 [subtribe Brachymyrmecini]; Donisthorpe, 1937a: 620; Donisthorpe, 1943c: 633.

Cladomyrma in Formicinae, Myrmelachistini: Wheeler, W.M. 1922a: 697; Chapman & Capco, 1951: 208; Hölldobler & Wilson, 1990: 18.

Cladomyrma incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Cladomyrma in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Cladomyrma in Formicinae, Brachymyrmecini: Wheeler, W.M. 1929a: 12; Wheeler, G.C. & Wheeler, J. 1985: 258; Bolton, 1994: 50.

Genus references

Emery, 1925b: 45 (diagnosis, catalogue); Chapman & Capco, 1951: 208 (Asia checklist); Agosti, 1991: 293 (diagnosis, all species revision, key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 145 (catalogue); Agosti, Moog & Maschwitz, 1999: 6 (queens, all species key).

Genus *LASIOPHANES* tribal transfer

Lasiophanes Emery, 1895d: 16 [as subgenus of *Melophorus*]. Type-species: *Formica nigriventris* (junior primary homonym in *Formica*; *Lasiophanes atriventris* is first available replacement name), by subsequent designation of Wheeler, W.M. 1911b: 165.

Taxonomic history

Lasiophanes in Camponotinae, Melophorini: Forel, 1917: 248.

Lasiophanes in Formicinae, Melophorini: Wheeler, W.M. 1922a: 695; Emery, 1925b: 12; Wheeler, W.M. 1935c: 70; all subsequent authors except the following.

Lasiophanes in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Lasiophanes as subgenus of *Melophorus*: Emery, 1895d: 16; Wheeler, W.M. 1910d: 143; Forel, 1917: 248; Emery, 1922a: 90; Emery, 1925b: 12; Donisthorpe, 1943c: 655.

Lasiophanes as genus: Wheeler, W.M. 1922a: 695; Wheeler, W.M. 1935c: 71; Kusnezov, 1952c: 90; Kusnezov, 1956: 31; Kempf, 1972a: 128; Snelling & Hunt, 1976: 104.

Genus references

Emery, 1922a: 91 (species key); Emery, 1925b: 12 (*Melophorus (Lasiophanes)* diagnosis, catalogue); Kusnezov, 1956: 31 (Argentina species key); Kempf, 1972a: 128 (catalogue); Snelling & Hunt, 1976: 104 (all species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 220 (catalogue).

Genus *LASIUS*

Lasius Fabricius, 1804: 415. Type-species: *Formica nigra*, by subsequent designation of Bingham, 1903: 338.

Taxonomic history

[*Lasius* Jurine, 1801: 164 (Apidae), resurrected by Morice & Durrant, 1915: 421, later suppressed by Act of Commission.]

Lasius in Formicinae: Mayr, 1861: 49 [Formicidae]; Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 8 [Formicidae]; Mayr, 1868b: 42 [Formicidae].

Lasius in Camponotinae: Forel, 1878: 374 [Camponotidae]; Emery & Forel, 1879: 452 [Camponotidae]; Forel, 1886b: 206; Dalla Torre, 1893: 181.

Lasius in Camponotinae, Camponotini: Forel, 1886b: 206.

Lasius in Camponotinae, Formicini: Forel, 1893a: 165; Forel, 1895a: 103; Emery, 1895e: 772; Forel,

1899: 127; Wheeler, W.M. 1910d: 143; Forel, 1912f: 89; Wheeler, W.M. 1915e: 120.

Lasius in Formicinae, Formicini: Wheeler, W.M. 1922a: 698; Carpenter, 1930: 58; Chapman & Capco, 1951: 201; Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1976: 101; Wheeler, G.C. & Wheeler, J. 1985: 258.

Lasius in Formicinae, Lasiini: Ashmead, 1905b: 384; Emery, 1925b: 226; all subsequent authors except the entries above and the two entries below; Bolton, 1994: 50.

Lasius in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 655.

Lasius in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Lasius as junior synonym of *Acanthomyops*: Forel, 1916: 460; Donisthorpe, 1916b: 276; Morice & Durrant, 1917: 442. Donisthorpe, 1927: 206; Donisthorpe, 1937c: 132; Donisthorpe, 1943c: 655; Donisthorpe, 1946c: 91.

Lasius as junior synonym of *Formicina*: Emery, 1916a: 61; Emery, 1916b: 239; Emery, 1917: 96; Wheeler, W.M. 1916f: 170; Bondroit, 1918: 19.

Lasius as genus: Fabricius, 1804: 415; Wheeler, W.M. 1916f: 172; Emery, 1925b: 226; Wilson, 1955a: 11; all subsequent authors.

Junior synonym of *LASIUS*

Donisthorpea Morice & Durrant, 1915: 423. Type-species: *Formica nigra*, by original designation.

Taxonomic history

[Unnecessary replacement name for *Lasius* Fabricius.]

Donisthorpea in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 640; Donisthorpe, 1946c: 91.

Donisthorpea as genus: Morice & Durrant, 1915: 423; Donisthorpe, 1915: 184.

Donisthorpea as subgenus of *Formicina*: Emery, 1916a: 11; Emery, 1916b: 240.

Donisthorpea as subgenus of *Acanthomyops*: Donisthorpe, 1927: 229; Donisthorpe, 1943c: 640; Donisthorpe, 1946c: 91.

Donisthorpea as junior synonym of *Acanthomyops*: Forel, 1916: 460; Morice & Durrant, 1917: 442; Donisthorpe, 1927: 209.

Donisthorpea as junior synonym of *Lasius*: Wheeler, W.M. 1916f: 172; Emery, 1925b: 226; Wilson, 1955a: 11.

Subgenera of *LASIUS* include the nominal plus the following.

Subgenus *LASIUS* (*DENDROLASIUS*)

Dendrolasius Ruzsky, 1912: 630 [as subgenus of *Lasius*]. Type-species: *Formica fuliginosa*, by monotypy.

Taxonomic history

[*Dendrolasius* also described as new by Ruzsky, 1914: 59.]

Dendrolasius as subgenus of *Formicina*: Forel, 1917: 249.

Dendrolasius as subgenus of *Acanthomyops*: Donisthorpe, 1927: 211; Donisthorpe, 1943c: 637.

Dendrolasius as subgenus of *Lasius*: Ruzsky, 1912: 630; Wheeler, W.M. 1922a: 698; Emery, 1925b: 235; Wilson, 1955a: 14; all subsequent authors except the following.

Dendrolasius as junior synonym of *Lasius*: Brown, 1973b: 180 [provisional].

Subgenus *LASIUS* (*CHTHONOLASIUS*)

Chthonolasius Ruzsky, 1912: 630 [as subgenus of *Lasius*]. Type-species: *Formica umbrata*, by subsequent designation of Emery, 1925b: 232.

Taxonomic history

[*Chthonolasius* also described as new by Ruzsky, 1914: 59. The claim by some authors (e.g. Emery, 1916a: 11; Donisthorpe, 1941c: 37; Donisthorpe, 1943c: 633) that Ruzsky nominated *Lasius flavus* as type-species is incorrect. Ruzsky (1912: 630) included those species "with the appearance of the yellow *Lasius* (*Las. flavus* D.G.) and its closely related species, and races (*Las. carniolicus*, *Las. umbratus*, *Las. myops*, *Las. mixtus*". This is not a direct nomination of a type-species, nor is De Geer (D.G.) the author of *flavus*: Bolton, 1995b: 24.]

Chthonolasius justified emendation of spelling: Wheeler, W.M. 1916f: 170.

Chthonolasius as junior synonym of *Formicina*: Wheeler, W.M. 1916f: 172; Emery, 1916a: 11.

Chthonolasius as subgenus of *Acanthomyops*: Donisthorpe, 1927: 254.

Chthonolasius as subgenus of *Lasius*: Ruzsky, 1912: 630; Ruzsky, 1914: 59; Wheeler, W.M. 1922a: 698; Emery, 1925b: 231; Wilson, 1955a: 13; all subsequent authors except the following.

Chthonolasius as junior synonym of *Lasius*: Brown, 1973b: 179 [provisional].

Subgenus *LASIUS* (*CAUTOLASIUS*)

Cautolasius Wilson, 1955a: 13 [as subgenus of *Lasius*]. Type-species: *Formica flava*, by original designation.

Taxonomic history

Cautolasius as junior synonym of *Lasius*: Brown, 1973b: 179 [provisional].

Subgenus *LASIUS* (*AUSTROLASIUS*)

Austrolasius Faber, 1967: 74 [as subgenus of *Lasius*]. Type-species: *Lasius carniolicus*, by original designation.

Taxonomic history

Austrolasius as junior synonym of *Lasius*: Brown, 1973b: 179 [provisional].

Genus references

Mayr, 1861: 49 (Europe species key); Roger, 1863b: 11 (catalogue); Mayr, 1863: 425 (catalogue); Mayr, 1865: 8 (diagnosis); Mayr, 1867a: 74 (diagnosis); André, 1874: 179 (Europe species key); Forel, 1874: 46 (Switzerland species key); Forel, 1878: 374 (diagnosis); André, 1882b: 191 (Europe & Algeria species key); Cresson, 1887: 257 (U.S.A. catalogue); Provancher, 1887: 236 (Canada species key); Nasonov, 1889: 64 (Russia species key); Dalla Torre, 1893: 181 (catalogue); Emery, 1893c: 637 (North America species key); Bingham, 1903: 339 (India species key); Ruzsky, 1905: 264 (Russian Empire species key); Wasmann, 1906: 10 (Luxemburg species key); Bondroit, 1910: 484 (Belgium species key); Wheeler, W.M. 1910c: 237 (North America *L. umbratus* forms, key); Stitz, 1914: 82 (Central Europe species key); Donisthorpe, 1915: 188 (Britain species key); Emery, 1916b: 243 (Italy species key); Wheeler, W.M. 1916g: 591 (U.S.A., Connecticut species key); Bondroit, 1918: 19 (France & Belgium species key); Wheeler, W.M. 1922a: 698 (subgenera key); Emery, 1925b: 226 (diagnosis, subgenera key, catalogue); Emery, 1925b: 231 (*L. (Chthonolasius)* diagnosis, catalogue); Emery, 1925b: 235 (*L. (Dendrolasius)* diagnosis, catalogue); Kuznetsov-Ugamsky, 1927d: 186 (Turkestan species key); Karavaiev, 1927a: 277 (Ukraine species key); Donisthorpe, 1927: 206 (Britain species key); Arnol'di, 1933b: 602 (Russia species key); Karavaiev, 1936: 193 (Ukraine species key); Stärcke, 1937: 57 (Europe *L. umbratus* group, key); Menozzi, 1939: 313 (Himalaya & Tibet species key); Stitz, 1939: 267 (Germany species key); Kratochvíl, 1941: 100 (Central Europe species key); Novák & Sadil, 1941: 100 (Central Europe species key); Cole, 1942: 373 (U.S.A., Utah species key); Holgersen, 1943: 174 (Norway species key); Holgersen, 1944: 199 (Norway species key); Buren, 1944: 296 (U.S.A., Iowa species key); Stärcke, 1944: 157 (Europe *L. niger* group, key); Boven, 1947: 184 (Belgium species key); Creighton, 1950a: 418 (North America species key); Chapman & Capco, 1951: 201 (Asia checklist); Wilson, 1955a: 13 (subgenera review); Wilson, 1955a: 26 (Nearctic species revision, key); Wilson, 1955a: 28 (Palearctic species revision, key); Boven, 1959: 11 (Netherlands species key); Wheeler, G.C. & Wheeler, J. 1963: 177 (U.S.A., North Dakota species key); Gregg, 1963: 453 (U.S.A., Colorado species key); Collingwood, 1963: 155 (Europe *L. umbratus* group species key); Collingwood, 1964: 107 (Britain species key); Bernard, 1967: 349 (diagnosis, Western Europe species key); Bourne, 1973: 19 (Britain species key); Boven, 1970: 28 (Netherlands species key); Bolton & Collingwood, 1975: 7 (Britain species key); Tarbinsky, 1976: 133 (Kirgizstan species key); Boven, 1977: 135 (Belgium species key); Kutter, 1977b: 208 (Switzerland species key); Arnol'di & Dlussky, 1978: 555 (former European U.S.S.R. species key); Collingwood, 1978: 89 (Iberian Peninsula species key); Collingwood, 1979: 92 (Fennoscandia & Denmark species key); Smith, D.R. 1979: 1435 (North America catalogue); Yamauchi, 1979: 147 (Japan species keys); Allred, 1982: 450 (U.S.A., Utah species key); Collingwood, 1982: 283 (Himalayan species key); Gösswald, 1985: 268 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 64 (U.S.A., Nevada species key); Nilsson & Douwes, 1987: 70 (Norway species key); Agosti & Collingwood, 1987: 281 (Balkans species key); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Seifert, 1988a: 143 (Europe *L. (Chthonolasius)* species key); Kupyanskaya, 1989: 781 (East Palearctic *L. (Dendrolasius)* species key); Dlussky, Soyunov & Zabelin, 1990: 158 (Turkmenistan species key); Seifert, 1990: 1 (supplement to European *L. (Chthonolasius)*); Agosti & Bolton, 1990b: 149 (characters); Kupyanskaya, 1990: 211 (Far Eastern Russia species key); Morisita, Kubota, Onoyama, *et al.*, 1991: 24 (Japan species key); Agosti, 1991: 295 (*Lasius* genus group diagnosis); Seifert, 1992: 48 (Palearctic *L. (Lasius)* species key); Atanasov & Dlussky, 1992: 232 (Bulgaria species key); Arakelian, 1994: 111 (Armenia species key); Radchenko, 1994a: 114 (South Siberia species key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 221 (catalogue); Douwes, 1995: 92 (Sweden species key); Kupyanskaya, 1995: 361 (Far Eastern Russia species key); Wu, J. & Wang, 1995: 153 (China species key); Seifert, 1996: 179 (Central Europe species key); Skinner & Allen, 1996: 42 (Britain species key); Collingwood & Prince, 1998: 22 (Portugal species key); Zhou, 2001: 187 (China, Guangxi species key); Blacker & Collingwood, 2002: 44 (British species key); Czechowski, Radchenko & Czechowska, 2002: 154 (Poland species key).

Genus *MYRMECOCYSTUS*

Myrmecocystus Wesmael, 1838: 770. Type-species: *Myrmecocystus mexicanus*, by monotypy.

Taxonomic history

- Myrmecocystus* in Camponotinae: Forel, 1878: 372 [Camponotidae]; Emery & Forel, 1879: 449 [Camponotidae]; Dalla Torre, 1893: 216.
 - Myrmecocystus* in Camponotinae, Camponotini: Forel, 1886b: 201.
 - Myrmecocystus* in Camponotinae, Formicini: Forel, 1893a: 165; Emery, 1895e: 772; Forel, 1899: 129; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 250.
 - Myrmecocystus* in Formicinae, Formicini: Wheeler, W.M. 1922a: 699; Chapman & Capco, 1951: 203 (anachronism); Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1976: 101; Wheeler, G.C. & Wheeler, J. 1985: 258; Jaffe, 1993: 14.
 - Myrmecocystus* in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 665.
 - Myrmecocystus* in Formicinae, Lasiini: Ashmead, 1905b: 384; Emery, 1925b: 238; subsequent authors except the above; Smith, D.R. 1979: 1445; Bolton, 1994: 50.
 - Myrmecocystus* in Formicinae, *Lasius* genus group: Agosti, 1991: 296.
 - Myrmecocystus* as junior synonym of *Cataglyphis*: Roger, 1863b: 12; Mayr, 1863: 431
 - Myrmecocystus* as genus: Forel, 1878: 372; all subsequent authors.
- Junior synonyms of *MYRMECOCYSTUS*
- Endiodioctes* Snelling, 1976: 25 [as subgenus of *Myrmecocystus*]. Type-species: *Myrmecocystus melliger*, by original designation.

Taxonomic history

Endiodictes as junior synonym of *Myrmecocystus*: Snelling, 1981: 403.

Eremnocyclus Snelling, 1976: 92 [as subgenus of *Myrmecocystus*]. Type-species: *Myrmecocystus creightoni*, by original designation.

Taxonomic history

Eremnocyclus as junior synonym of *Myrmecocystus*: Snelling, 1981: 403.

Genus references

Forel, 1878: 372 (diagnosis); Cresson, 1887: 255 (U.S.A. catalogue); Dalla Torre, 1893: 216 (catalogue); Wheeler, W.M. 1912: 173 (all species key); Emery, 1925b: 238 (diagnosis, catalogue); Cole, 1942: 385 (U.S.A., Utah species key); Creighton, 1950a: 440 (North America species key); Gregg, 1963: 643 (U.S.A., Colorado species key); Snelling, 1969: 6 (*M. melliger* complex, key); Snelling, 1976: 22, 25, 27, 93, 115 (diagnosis, all species revision, keys); Smith, D.R. 1979: 1445 (North America catalogue); Snelling, 1982b: 77, 83 (supplements to 1976 keys); Allred, 1982: 451 (U.S.A., Utah species key); Wheeler, G.C. & Wheeler, J. 1986b: 69 (U.S.A., Nevada species key); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 274 (catalogue).

Genus *PROLASIUS* tribal transfer

Prolasius Forel, 1892b: 331 [as subgenus of *Lasius*]. Type-species: *Formica advena*, by monotypy.

Taxonomic history

Prolasius in Camponotinae, Melophorini: Forel, 1917: 248.

Prolasius in Formicinae, Melophorini: Wheeler, W.M. 1922a: 695; Emery, 1925b: 13; Wheeler, W.M. 1935c: 71; Donisthorpe, 1943c: 687; McAreavey, 1947: 9; all subsequent authors except the following.

Prolasius in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Prolasius as subgenus of *Lasius*: Forel, 1892b: 331; Dalla Torre, 1893: 181; Wheeler, W.M. 1910d: 143;

Prolasius as subgenus of *Melophorus*: Forel, 1917: 248; Emery, 1925b: 13; Donisthorpe, 1943c: 687.

Prolasius as genus: Wheeler, W.M. 1922a: 695; Clark, 1934c: 66; Wheeler, W.M. 1935c: 71; McAreavey, 1947: 9; Taylor & Brown, D.R. 1985: 142.

Genus references

Emery, 1925b: 13 (*Melophorus* (*Prolasius*) diagnosis, catalogue); McAreavey, 1947: 9 (diagnosis, all species key); Taylor & Brown, D.R. 1985: 142 (Australia catalogue); Taylor, 1987a: 65 (Australia, New Zealand checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 368 (catalogue); Shattuck, 1999: 110 (Australia synopsis).

Genus *STIGMACROS* tribal transfer

Stigmacros Forel, 1905b: 179 [as subgenus of *Acantholepis*].

Taxonomic history

[Replacement name for *Acrostigma* Forel, 1902c: 477; junior homonym of **Acrostigma* Emery, 1891a: 149 (Formicidae).]

Stigmacros in Camponotinae, Plagiolepidini: Forel, 1917: 249.

Stigmacros in Formicinae, Myrmelachistini: Emery, 1925b: 34; Donisthorpe, 1943d: 728.

Stigmacros in Formicinae, Brachymyrmecini: Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1985: 258.

Stigmacros incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Stigmacros in Formicinae, Prenolepidini: Hölldobler & Wilson, 1990: 18 (error).

Stigmacros in Formicinae, Plagiolepidini: Wheeler, W.M. 1922a: 696; McAreavey, 1957: 7; Bolton, 1994: 51.

Stigmacros as subgenus of *Acantholepis*: Forel, 1905b: 179; Wheeler, W.M. 1910d: 143; Forel, 1917: 249.

Stigmacros as genus: Wheeler, W.M. 1922a: 696; Emery, 1925b: 34; McAreavey, 1957: 7; subsequent authors.

Homonym replaced by *STIGMACROS*

Acrostigma Forel, 1902c: 477 [as subgenus of *Acantholepis*]. Type-species: *Acantholepis* (*Acrostigma*) *froggatti*, by subsequent designation of Wheeler, W.M. 1911b: 158.

Taxonomic history

[Junior homonym of **Acrostigma* Emery, 1891a: 149 (Formicidae).]

Junior synonyms of *STIGMACROS*

Hagiostigmacros McAreavey, 1957: 19 [as subgenus of *Stigmacros*]. Type-species: *Stigmacros barretti*, by original designation.

Taxonomic history

Hagiostigmacros as junior synonym of *Stigmacros*: Brown, 1973b: 181 [provisional]; Taylor & Brown, D.R. 1985: 145.

Chariostigmacros McAreavey, 1957: 23 [as subgenus of *Stigmacros*]. Type-species: *Stigmacros* (*Chariostigmacros*) *hirsuta*, by original designation.

Taxonomic history

Chariostigmacros as junior synonym of *Stigmacros*: Brown, 1973b: 179 [provisional]; Taylor & Brown, D.R. 1985: 145.

Pseudostigmacros McAreavey, 1957: 24 [as subgenus of *Stigmacros*]. Type-species: *Stigmacros* (*Pseudostigmacros*) *inermis*, by original designation.

Taxonomic history

Pseudostigmacros as junior synonym of *Stigmacros*: Brown, 1973b: 184 [provisional]; Taylor & Brown, D.R. 1985: 145.

Campostigmacros McAreavey, 1957: 25 [as subgenus of *Stigmacros*]. Type-species: *Acantholepis aemula*, by original designation.

Taxonomic history

Campostigmacros as junior synonym of *Stigmacros*: Brown, 1973b: 179 [provisional]; Taylor & Brown, D.R. 1985: 145.

Cyrtostigmacros McAreavey, 1957: 35 [as subgenus of *Stigmacros*]. Type-species: *Acantholepis (Acrostigma) australis*, by original designation.

Taxonomic history

Cyrtostigmacros as junior synonym of *Stigmacros*: Brown, 1973b: 179 [provisional]; Taylor & Brown, D.R. 1985: 145.

Genus references

Emery, 1925b: 34 (diagnosis, catalogue); McAreavey, 1957: 7 (diagnosis, all species revision, key); Taylor & Brown, D.R. 1985: 145 (Australia catalogue); Taylor, 1987a: 74 (Australia checklist); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 394 (catalogue); Shattuck, 1999: 114 (Australia synopsis).

Genus TERATOMYRMEX

Teratomyrmex McAreavey, 1957: 54. Type-species: *Teratomyrmex greavesi*, by original designation.

Taxonomic history

Teratomyrmex in Formicinae, Formicini: Wheeler, G.C. & Wheeler, J. 1985: 258.

Teratomyrmex incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Teratomyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Teratomyrmex in Formicinae, Lasiini: McAreavey, 1957: 54; Bolton, 1994: 50.

Genus references

Taylor & Brown, D.R. 1985: 149 (Australia catalogue); Taylor, 1987a: 78 (Australia checklist); Bolton, 1995a: 1053 (census); Bolton, 1995b: 403 (catalogue); Shattuck, 1999: 116 (Australia synopsis).

Tribe PLAGIOLEPIDINI

Plagiolepisii Forel, 1886b: 212. Type-genus: *Plagiolepis*.

Taxonomic history

Plagiolepidini as tribe of Camponotinae: Forel, 1886b: 212 [*Plagiolepisii*]; Forel, 1891b: 95 [*Plagiolepisii*]; Forel, 1893a: 165 [*Plagiolepisii*]; Emery, 1893e: 635 [*Plagiolepidii*]; Emery, 1895e: 771 [*Plagiolepidii*]; Forel, 1899: 123 [*Plagiolepidii*]; Ruzsky, 1905: 110 [*Plagiolepidii*]; Wheeler, W.M. 1910d: 143 [*Plagiolepidii*]; Wheeler, W.M. 1915e: 100; Forel, 1917: 249; Arnold, 1920: 554.

Plagiolepidini as tribe of Formicinae: Ashmead, 1905b: 384; Bondroit, 1918: 18; Wheeler, W.M. 1922a: 693; Emery, 1925b: 15; Santschi, 1926a: 13; all subsequent authors. [*Taxonomy*, p. 22.]

Junior synonyms of PLAGIOLEPIDINI

Prenolepidii Forel, 1912f: 89 [tribe of Camponotinae]. Type-genus: *Prenolepis*. **Syn. n.**

Taxonomic history

Prenolepidii as tribe of Camponotinae: Wheeler, W.M. 1915e: 100 [*Prenolepidini*]; Emery, 1916b: 237 [*Prenolepidini*]; Forel, 1917: 249 [*Prenolepidini*]; Arnold, 1922: 605 [*Prenolepidini*].

Prenolepidii as tribe of Formicinae: Bondroit, 1918: 18 [*Prenolepidini*]; Wheeler, W.M. 1922a: 692 [*Prenolepidini*]; Chapman & Capco, 1951: 214; Hölldobler & Wilson, 1990: 18.

Prenolepidii as junior synonym of Lasiini: Emery, 1925b: 212; subsequent authors except for the above; Bolton, 1994: 50.

Myrmelachistini Forel, 1912f: 89 (diagnosis in key). Type-genus: *Myrmelachista*. **Syn. n.**

Taxonomic history

Myrmelachistini as tribe of Camponotinae: Forel, 1912f: 89; Forel, 1917: 249; Arnold, 1920: 552.

Myrmelachistini as tribe of Formicinae: Wheeler, W.M. 1922a: 693; Emery, 1925b: 31; all subsequent authors.

Brachymyrmecini Emery, 1925b: 40. Type-genus: *Brachymyrmex*. **Syn. n.**

Taxonomic history

Brachymyrmecini as subtribe of Dimorphomyrmecini: Emery, 1925b: 40 [*Brachymyrmecini*].

Brachymyrmecini as tribe of Formicinae: Wheeler, W.M. 1929a: 12 (in text); Wheeler, G.C. & Wheeler, J. 1976: 64; Wheeler, G.C. & Wheeler, J. 1985: 258 [*Brachymyrmecini*]; Jaffe 1993: 12; Bolton, 1994: 50.

Bregmatomyrminii Wheeler, W.M. 1929b: 5. Type-genus: *Bregmatomyrma*. **Syn. n.**

Taxonomic history

Bregmatomyrminii as tribe of Formicinae: Wheeler, W.M. 1929b: 5; Bolton, 1994: 50 [*Bregmatomyrmini*].

Genera: *Agraulomyrmex*, *Aphomomyrmex*, *Brachymyrmex*, *Bregmatomyrma*, *Euprenolepis*, *Lepisiota*, *Myrmelachista*, *Paratrechina*, *Petalomyrmex*, *Plagiolepis*, *Prenolepis*, *Pseudaphomomyrmex*, *Pseudolasius*, *Tapinolepis*.

Tribe references

Forel, 1893a: 165 (synoptic classification); Emery, 1895e: 771 (synoptic classification); Forel, 1917: 249

(synoptic classification); Wheeler, W.M. 1922a: 695, 696, 697 (Plagiolepidini, Myrmelachistini, Prenolepidini genera keys); Wheeler, W.M. 1922a: 928, 1035 (Afrotropical, Malagasy catalogues); Emery, 1925b: 15 (diagnosis, genera key, catalogue); Santschi, 1926a: 13 (genera, synopsis); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 64 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 18 (synoptic classification); Brandão, 1991: 393 (Neotropical fauna, synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1039 (census); Bolton, 1995b: 9, 14 (catalogue).

Genera of Plagiolepidini

Genus *AGRAULOMYRMEX*

Agraulomyrmex Prins, 1983: 2. Type-species: *Agraulomyrmex meridionalis*, by original designation.

Taxonomic history

Agraulomyrmex in Formicinae, Plagiolepidini: Prins, 1983: 2; Bolton, 1994: 51; Bolton, 1995b: 61.

Genus *APHOMOMYRMEX* tribal transfer

Aphomomyrmex Emery, 1899b: 493. Type-species: *Aphomomyrmex afer*, by subsequent designation of Wheeler, W.M. 1911b: 159.

Taxonomic history

Aphomomyrmex in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.

Aphomomyrmex in Camponotinae, Plagiolepidini: Wheeler, W.M. 1910d: 143.

Aphomomyrmex in Camponotinae, Myrmelachistini: Forel, 1912f: 89; Forel, 1917: 249; Arnold, 1920: 552.

Aphomomyrmex in Formicinae, Dimorphomyrmecini: Emery, 1925b: 44 [subtribe Brachymyrmecini]; Donisthorpe, 1943c: 624.

Aphomomyrmex incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Aphomomyrmex in Formicinae, Myrmelachistini: Wheeler, W.M. 1922a: 697; Hölldobler & Wilson, 1990: 18.

Aphomomyrmex in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Aphomomyrmex in Formicinae, Brachymyrmecini: Wheeler, W.M. 1929a: 12; Wheeler, G.C. & Wheeler, J. 1985: 258; Bolton, 1994: 50.

[*Aphomyrmex* Ashmead, 1905a: 111, incorrect subsequent spelling.]

Genus references

Arnold, 1920: 552 (South Africa species); Wheeler, W.M. 1922a: 940 (Afrotropical catalogue); Emery, 1925b: 44 (diagnosis, catalogue); Snelling, 1979: 3 (review of genus); Bolton, 1995a: 1048 (census); Bolton, 1995b: 74 (catalogue).

Genus *BRACHYMYRMEX* tribal transfer

Brachymyrmex Mayr, 1868a: 163. Type-species: *Brachymyrmex patagonicus*, by monotypy.

Taxonomic history

Brachymyrmex in Camponotinae: Forel, 1878: 375 [Camponotidae]; Dalla Torre, 1893: 174.

Brachymyrmex in Camponotinae, Plagiolepidini: Forel, 1893a: 165; Forel, 1895a: 106; Emery, 1895e: 771; Forel, 1899: 123; Wheeler, W.M. 1910d: 143.

Brachymyrmex in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.

Brachymyrmex in Camponotinae, Myrmelachistini: Forel, 1912f: 89.

Brachymyrmex in Formicinae, Dimorphomyrmecini: Emery, 1925b: 40 [subtribe Brachymyrmecini]; Donisthorpe, 1943c: 628.

Brachymyrmex incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Brachymyrmex in Formicinae, Myrmelachistini: Wheeler, W.M. 1922a: 697; Hölldobler & Wilson, 1990: 18.

Brachymyrmex in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Brachymyrmex in Formicinae, Brachymyrmecini: Wheeler, W.M. 1929a: 12; Kempf, 1972a: 37; Wheeler, G.C. & Wheeler, J. 1985: 258; Jaffe, 1993: 13; Bolton, 1994: 50.

Junior synonym of *BRACHYMYRMEX*

Bryscha Santschi, 1923b: 652 [as subgenus of *Brachymyrmex*]. Type-species: *Brachymyrmex pilipes*, by original designation.

Taxonomic history

Bryscha as junior synonym of *Brachymyrmex*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1424.

Genus references

Forel, 1878: 375 (diagnosis); André, 1882b: 214 (Europe & Algeria species); Cresson, 1887: 255 (U.S.A. catalogue); Dalla Torre, 1893: 174 (catalogue); Wheeler, W.M. 1922a: 1036 (Malagasy catalogue); Santschi, 1923b: 652 (diagnosis, all species key); Emery, 1925b: 40 (diagnosis, catalogue); Emery, 1925b: 43 (*B. (Bryscha)* diagnosis, catalogue); Creighton, 1950a: 356 (North America species, review); Bernard, 1967: 279 (diagnosis); Kempf, 1972a: 37 (Neotropical catalogue); Alayo, 1974: 26 (Cuba species key); Smith, D.R. 1979: 1424 (North America catalogue); Brandão, 1991: 331 (catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 81 (catalogue).

Genus *BREGMATOMYRMA* tribal transfer

Bregmatomyrma Wheeler, W.M. 1929b: 3. Type-species: *Bregmatomyrma carnosa*, by original designation.

Taxonomic history

Bregmatomyrma in Formicinae, Bregmatomyrmini: Wheeler, W.M. 1929b: 5 [*Bregmatomyrmini*]; all subsequent authors except those below; Bolton, 1994: 50; Bolton, 1995b: 82.

Bregmatomyrmex [incorrect subsequent spelling] *incertae sedis* in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Bregmatomyrma incertae sedis in Formicinae: Dlussky & Fedoseeva, 1988: 77.

Bregmatomyrma in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Genus *EUPRENOLEPIS* tribal transfer

Euprenolepis Emery, 1906b: 134 [as subgenus of *Prenolepis*]. Type-species: *Prenolepis procera*, by original designation.

Taxonomic history

Euprenolepis in Camponotinae, Formicini: Wheeler, W.M. 1910d: 143.

Euprenolepis in Camponotinae, Prenolepidini: Forel, 1917: 249.

Euprenolepis in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 645.

Euprenolepis in Formicinae, Brachymyrmecini: Wheeler, G.C. & Wheeler, J. 1985: 258.

Euprenolepis in Formicinae, Prenolepidini: Hölldobler & Wilson, 1990: 18 (anachronism).

Euprenolepis in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Euprenolepis in Formicinae, Lasiini: Emery, 1925b: 223; Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50.

Euprenolepis as subgenus of *Prenolepis*: Emery, 1906b: 134; Wheeler, W.M. 1910d: 143; Forel, 1917: 249; Wheeler, W.M. 1922a: 697.

Euprenolepis as subgenus of *Paratrechina*: Emery, 1925b: 223; Donisthorpe, 1943c: 645; Chapman & Capco, 1951: 218.

Euprenolepis as genus: Brown, 1953d: 6; Bolton, 1994: 50.

Junior synonym of *EUPRENOLEPIS*

Chapmanella Wheeler, W.M. 1930a: 41. Type-species: *Chapmanella negrosensis*, by original designation.

Taxonomic history

Chapmanella in Formicinae, Lasiini: Wheeler, W.M. 1930a: 44.

Chapmanella in Formicinae, Prenolepidini: Donisthorpe, 1943c: 632; Chapman & Capco, 1951: 214.

Chapmanella as junior synonym of *Euprenolepis*: Brown, 1953d: 6.

Genus references

Emery, 1925b: 223 (diagnosis, catalogue); Chapman & Capco, 1951: 214 (Asia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 189 (catalogue).

Genus *LEPISIOTA*

Lepisiota Santschi, 1926a: 15 [as subgenus of *Acantholepis*]. Type-species: *Plagiolepis rothneyi*, by original designation.

Taxonomic history

[*Lepisiota* first available replacement name for *Acantholepis* Mayr, 1861 (junior homonym of *Acantholepis* Kroyer, 1846: 98 (Pisces)), hence valid name of genus: Bolton, 1995b: 33.]

Lepisiota in Formicinae, Plagiolepidini: Bolton, 1994: 51.

[*Lepisiota* incorrectly as junior synonym of *Acanthomyrmex*: Brown, 1973b: 181; Snelling, 1981: 397. In both publications *Acanthomyrmex* is an error for *Acantholepis*.]

Homonym replaced by *LEPISIOTA*

Acantholepis Mayr, 1861: 42. Type-species: *Hypoclinea frauenfeldi*, by monotypy.

Taxonomic history

[Junior homonym of *Acantholepis* Kroyer, 1846: 98 (Pisces)].

Acantholepis in Formicinae: Mayr, 1861: 42 [Formicinae]; Mayr, 1862: 652 [Formicidae]; Mayr, 1865: 9 [Formicidae].

Acantholepis in Camponotinae: Forel, 1878: 378 [Camponotidae]; Emery & Forel, 1879: 453 [Camponotidae]; Dalla Torre, 1893: 171.

Acantholepis in Camponotinae, Plagiolepidini: Forel, 1886b: 212; Forel, 1893a: 165; Emery, 1895e: 771; Wheeler, W.M. 1910d: 143; Forel, 1912f: 88; Forel, 1917: 249; Arnold, 1920: 554.

Acantholepis in Formicinae, Plagiolepidini: Ashmead, 1905b: 384; Wheeler, W.M. 1922a: 696; Emery, 1925b: 23; Santschi, 1926a: 15; all subsequent authors except the following.

Acantholepis in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

[*Achantilepis* Santschi, 1935: 274, incorrect subsequent spelling.]

[*Pseudacantholepis* Bernard, 1953: 256 (attributed to Santschi) [as subgenus of *Acantholepis*]. Unavailable name. Proposed without designation of type-species and therefore unavailable. Species included by Bernard (1953) are all referable to *Lepisiota*: Bolton, 1995b: 44.]

Junior synonym of *LEPISIOTA*

Baroniurbania Pagliano & Scaramozzino, 1990: 4. Unnecessary replacement name for *Acantholepis* Mayr (junior homonym).

Taxonomic history

Baroniurbania as junior synonym of *Lepisiota*: Bolton, 1994: 51.

Genus references

[Note. Entries prior to Bolton, 1995b: 44, refer to genus as *Acantholepis*.]

Roger, 1863b: 11 (catalogue); Mayr, 1863: 394 (catalogue); Mayr, 1865: 9 (diagnosis); Forel, 1878: 378 (diagnosis); André, 1882b: 210 (Europe & Algeria species key); Forel, 1892a: 41 (all species key); Dalla Torre, 1893: 171 (catalogue); Forel, 1894a: 411 (India & Sri Lanka species key); Bingham, 1903: 315 (India, Sri Lanka & Burma species key); Arnold, 1920: 554 (diagnosis, South Africa species key); Wheeler, W.M. 1922a: 214, 934, 1036 (diagnosis, Afrotropical, Malagasy catalogues); Emery, 1925b: 23 (diagnosis, catalogue); Kuznetsov-Ugamsky, 1929a: 480 (Turkestan species key); Finzi, 1936: 188 (Egypt species key); Chapman & Capco, 1951: 209 (Asia checklist); Collingwood, 1985: 292 (Saudi Arabia species key); Agosti & Collingwood, 1987: 281 (Balkans species key); Atanasov & Dlussky, 1992: 205 (Bulgaria species key); Xu, 1994c: 232 (China species key); Arakelian, 1994: 80 (Armenia species key); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 226 (catalogue); Wu, J. & Wang, 1995: 128 (China species key); Collingwood & Agosti, 1996: 363 (Saudi Arabia species key); Zhou, 2001: 167 (China, Guangxi species key).

Genus MYRMELACHISTA tribal transfer

Myrmelachista Roger, 1863a: 162. Type-species: *Myrmelachista kraatzii*, by monotypy.

Taxonomic history

Myrmelachista in Formicinae: Mayr, 1865: 10 [Formicidae].

Myrmelachista in Camponotinae: Forel, 1878: 367 [Camponotidae]; Dalla Torre, 1893: 174.

Myrmelachista in Camponotinae, Plagiolepidini: Forel, 1886b: 214; Forel, 1893a: 165; Forel, 1895a: 106; Emery, 1895e: 771; Forel, 1899: 124; Wheeler, W.M. 1910d: 143.

Myrmelachista in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.

Myrmelachista in Camponotinae, Myrmelachistini: Forel, 1912f: 89; Forel, 1917: 249.

Myrmelachista in Formicinae, Myrmelachistini: Wheeler, W.M. 1922a: 696; Emery, 1925b: 32; all subsequent authors except the following.

Myrmelachista in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Junior synonyms of MYRMELACHISTA

Neaphomus Menozzi, 1935b: 324 [as subgenus of *Aphomomyrmex*]. Type-species: *Aphomomyrmex* (*Neaphomus*) *goetschi*, by monotypy.

Taxonomic history

Neaphomus in Formicinae, Dimorphomyrmecini: Donisthorpe, 1943c: 673.

Neaphomus in Formicinae, Myrmelachistini: Kempf, 1972a: 152; Dlussky & Fedoseeva, 1988: 77.

Neaphomus as genus: Kempf, 1972a: 152; Dlussky & Fedoseeva, 1988: 77.

Neaphomus as junior synonym of *Myrmelachista*: Brown, 1973b: 183 [provisional]; Snelling & Hunt, 1976: 110.

Hincksidris Donisthorpe, 1944a: 59 [as subgenus of *Myrmelachista*].

Taxonomic history

[Replacement name for *Decamera* Roger, 1863a: 166; junior homonym of *Decamera* Mulsant, 1842: 503 (Coleoptera).]

Hincksidris as junior synonym of *Myrmelachista*: Brown, 1973b: 181 [provisional]; Snelling & Hunt, 1976: 110.

Homonym replaced by *Hincksidris*

Decamera Roger, 1863a: 166. Type-species: *Decamera nigella*, by monotypy.

Taxonomic history

[*Decamera* Roger junior homonym of *Decamera* Mulsant, 1842: 503 (Coleoptera).]

Decamera in Formicinae: Mayr, 1865: 10 [Formicidae].

Decamera in Camponotinae, Myrmelachistini: Forel, 1917: 249.

Decamera as junior synonym of *Myrmelachista*: Forel, 1878: 376; Mayr, 1887: 525; Dalla Torre, 1893: 174.

Decamera as subgenus of *Myrmelachista*: Forel, 1886b: 214; Forel, 1917: 249; Wheeler, W.M. 1922a: 696; Emery, 1925b: 32; Donisthorpe, 1943c: 637.

Genus references

Roger, 1863b: 11 (catalogue); Mayr, 1863: 429 (catalogue); Mayr, 1865: 10 (*Myrmelachista*, *Decamera* diagnoses); Forel, 1878: 376 (diagnosis); Mayr, 1887: 526 (species key); Dalla Torre, 1893: 174 (catalogue); Forel, 1917: 249 (synoptic classification); Wheeler, W.M. 1922a: 696 (genera, subgenera key); Emery, 1925b: 31 (diagnosis, catalogue); Emery, 1925b: 32 (*M. (Decamera)* diagnosis, catalogue); Wheeler, W.M. 1934d: 188 (*M. (Myrmelachista)* species key); Kempf, 1972a: 147, 152 (Neotropical *Myrmelachista*, *Neaphomus* catalogues); Alayo, 1974: 26 (Cuba species key); Snelling & Hunt, 1976: 110 (Chile species key); Smith, D.R. 1979: 1423 (North America catalogue); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Emery, 1925b: 31 (diagnosis, catalogue); Wheeler, G.C. & Wheeler, J. 1976: 65 (larvae, review & synthesis); Hölldobler & Wilson, 1990: 18 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 275 (catalogue).

Genus *PARATRECHINA* tribal transfer

Paratrechina Motschoulsky, 1863: 13. Type-species: *Paratrechina currens* (junior synonym of *Paratrechina longicornis*), by subsequent designation of Wheeler, W.M. 1911b: 170.

Taxonomic history

Paratrechina in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 682.

Paratrechina in Formicinae, Prenolepidini: Chapman & Capco, 1951: 218; Hölldobler & Wilson, 1990: 18 (anachronism).

Paratrechina in Formicinae, Myrmelachistini: Wheeler, G.C. & Wheeler, J. 1970: 652; Wheeler, G.C. & Wheeler, J. 1976: 101.

Paratrechina in Formicinae, Brachymyrmecini: Wheeler, G.C. & Wheeler, J. 1985: 258.

Paratrechina in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Paratrechina in Formicinae, Lasiini: Emery, 1925b: 216; Stitz, 1939: 379; Bernard, 1953: 257; Kempf, 1972a: 182; Smith, D.R. 1979: 1442; Dlussky & Fedoseeva, 1988: 77; Jaffe, 1993: 14; Bolton, 1994: 50.

Paratrechina as junior synonym of *Prenolepis*: Dalla Torre, 1893: 177; Wheeler, W.M. 1922a: 940.

Paratrechina as genus: Emery, 1925b: 216; all subsequent authors.

Junior synonyms of *PARATRECHINA*

Nylanderia Emery, 1906b: 133 [as subgenus of *Prenolepis*]. Type-species: *Formica vividula*, by original designation.

Taxonomic history

Nylanderia in Camponotinae, Formicini: Wheeler, W.M. 1910d: 143.

Nylanderia in Camponotinae, Prenolepidini: Forel, 1917: 249.

Nylanderia in Formicinae, Prenolepidini: Wheeler, W.M. 1922a: 697; Chapman & Capco, 1951: 214.

Nylanderia in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 676.

Nylanderia in Formicinae, Lasiini: Kempf, 1972a: 166.

Nylanderia as subgenus of *Prenolepis*: Emery, 1906b: 133; Wheeler, W.M. 1910d: 143; Forel, 1917: 249; Wheeler, W.M. 1922a: 697.

Nylanderia as subgenus of *Paratrechina*: Emery, 1925b: 217; Creighton, 1950a: 405; Smith, D.R. 1979: 1443.

Nylanderia as genus: Wheeler, W.M. 1936b: 210; Donisthorpe, 1943c: 676; Chapman & Capco, 1951: 214; Kempf, 1972a: 166.

Nylanderia as junior synonym of *Paratrechina*: Brown, 1973b: 183 [provisional]; Trager, 1984: 51.

Andraghnathus Emery, 1922b: 111. Type-species: *Andraghnathus hubrechtii*, by monotypy.

Taxonomic history

Andraghnathus in Formicinae, Lasiini: Emery, 1925b: 224.

Andraghnathus in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 622.

Andraghnathus in Formicinae, Formicini: Chapman & Capco, 1951: 197.

Andraghnathus in Formicinae, Myrmelachistini: Wheeler, G.C. & Wheeler, J. 1985: 258 (error).

Andraghnathus as junior synonym of *Paratrechina*: Agosti & Bolton, 1990a: 75.

Paraparatrechina Donisthorpe, 1947b: 192 [as subgenus of *Paratrechina*]. Type-species: *Paratrechina (Paraparatrechina) pallida*, by monotypy.

Taxonomic history

Paraparatrechina in Acanthomyopsini: Donisthorpe, 1947b: 192.

Paraparatrechina as junior synonym of *Paratrechina*: Brown, 1973b: 183 [provisional]; Trager, 1984: 58.

Genus references

André, 1882b: 203 (Europe & Algeria species key); Forel, 1894a: 406 (India & Sri Lanka species key); Wheeler, W.M. 1922a: 941, 1037 (Afrotropical, Malagasy *P. (Nylanderia)* catalogues); Emery, 1925b: 216 (diagnosis, catalogue); Emery, 1925b: 217 (*P. (Nylanderia)* diagnosis, catalogue); Emery, 1925b: 224 (*Andraghnathus* diagnosis, catalogue); Finzi, 1936: 191 (Egypt species key); Buren, 1944: 295 (U.S.A., Iowa species key); Creighton, 1950a: 404 (North America species key); Chapman & Capco, 1951: 197, 214, 218 (Asia *Andraghnathus*, *Nylanderia*, *Paratrechina* checklists); Kusnezov, 1956: 32 (Argentina species key); Bernard, 1967: 347 (diagnosis, Western Europe species key); Kempf, 1972a: 166, 182 (Neotropical *Nylanderia*, *Paratrechina* catalogues); Alayo, 1974: 26 (Cuba species key); Arnol'di & Dlussky, 1978: 556 (former European U.S.S.R. species key); Smith, D.R. 1979: 1442 (North America, catalogue); Trager, 1984: 65 (Nearctic species revision, key); Wheeler, G.C. & Wheeler, J. 1986b: 64 (U.S.A., Nevada species key); Collingwood, 1985: 298 (Saudi Arabia species key); Taylor & Brown, D.R. 1985: 129 (Australia catalogue); Taylor, 1987a: 52 (Australia, New Caledonia & New Zealand checklist); Brandão, 1991: 365 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1991: 20 (Japan species key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 312 (catalogue); Wu, J. & Wang, 1995: 150 (China species key); Collingwood & Agosti, 1996: 369 (Saudi Arabia species key); Terayama, 1999b: 50 (Japan species key); Shattuck, 1999: 104 (Australia synopsis); Zhou, 2001: 177 (China, Guangxi species key).

Genus *PETALOMYRMEX* tribal transfer

Petalomyrmex Snelling, 1979: 5. Type-species: *Petalomyrmex phylax*, by original designation.

Taxonomic history

Petalomyrmex in Formicinae, Myrmelachistini: Hölldobler & Wilson, 1990: 18.

Petalomyrmex in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Petalomyrmex in Formicinae, Brachymyrmecini: Wheeler, G.C. & Wheeler, J. 1985: 258; Bolton, 1994:

50; Bolton, 1995b: 316.

Genus *PLAGIOLEPIS*

Plagiolepis Mayr, 1861: 42. Type-species: *Formica pygmaea*, by monotypy.

Taxonomic history

Plagiolepis in Formicinae: Mayr, 1861: 42 [Formicinae]; Mayr, 1862: 652 [Formicidae]; Mayr, 1865: 7 [Formicidae]; Mayr, 1868b: 36 [Formicidae].

Plagiolepis in Camponotinae: Forel, 1878: 378 [Camponotidae]; Emery & Forel, 1879: 453 [Camponotidae]; Dalla Torre, 1893: 172.

Plagiolepis in Camponotinae, Plagiolepidini: Forel, 1886b: 212; Forel, 1893a: 165; Emery, 1895e: 771; Wheeler, W.M. 1910d: 143; Forel, 1912f: 88; Wheeler, W.M. 1915e: 100; Forel, 1917: 249; Arnold, 1920: 578.

Plagiolepis in Formicinae, Plagiolepidini: Ashmead, 1905b: 384; Bondroit, 1918: 18; Wheeler, W.M. 1922a: 696; Emery, 1925b: 19; Santschi, 1926a: 14; all subsequent authors except the following.

Plagiolepis in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Junior synonyms of *PLAGIOLEPIS*

**Rhopalomyrmex* Mayr, 1868b: 41. Type-species: **Rhopalomyrmex pygmaeus*, by monotypy.

Taxonomic history

**Rhopalomyrmex* in Formicinae: Mayr, 1868b: 41 [Formicidae].

**Rhopalomyrmex* in Camponotinae: Forel, 1878: 376 [Camponotidae]; Dalla Torre, 1893: 175.

**Rhopalomyrmex* in Camponotinae, Myrmelachistini: Forel, 1912f: 89.

**Rhopalomyrmex* in Camponotinae, Plagiolepidini: Wheeler, W.M. 1910d: 143; Wheeler, W.M. 1915e: 103.

**Rhopalomyrmex* in Formicinae, Plagiolepidini: Donisthorpe, 1943d: 724; Bolton, 1994: 51.

**Rhopalomyrmex* as junior synonym of *Plagiolepis*: Dlussky, 1997: 624.

Anacantholepis Santschi, 1914c: 36 [as subgenus of *Plagiolepis*]. Type-species: *Plagiolepis (Anacantholepis) decora*, by original designation. Syn. n. [Appendix 1.2, p. 268.]

Taxonomic history

Anacantholepis as genus: Chapman & Capco, 1951: 212.

Anacantholepis as subgenus of *Plagiolepis*: Santschi, 1914c: 36 Forel, 1917: 249; Arnold, 1922: 581; Wheeler, W.M. 1922a: 696; Emery, 1925b: 22; Bolton, 1994: 51.

Anacantholepis as junior synonym of *Plagiolepis*: Brown, 1973b: 178 [provisional].

Aporomyrmex Faber, 1969: 52. Type-species: *Aporomyrmex ampeloni*, by original designation.

Taxonomic history

Aporomyrmex in Formicinae, Plagiolepidini: Faber, 1969: 52 (by implication).

Aporomyrmex as junior synonym of *Plagiolepis*: Brown, 1973b: 178 [provisional]; Bolton, 1994: 51.

Paraplagiolepis Faber, 1969: 65 [as subgenus of *Plagiolepis*]. Type-species: *Plagiolepis xene*, by monotypy.

Taxonomic history

Paraplagiolepis as junior synonym of *Plagiolepis*: Brown, 1973b: 183 [provisional]; Bolton, 1994: 51.

Genus references

Roger, 1863b: 11 (catalogue); Mayr, 1863: 442 (catalogue); Mayr, 1865: 7 (diagnosis); Mayr, 1867a: 73 (diagnosis); Forel, 1878: 376, 378 (**Rhopalomyrmex*, *Plagiolepis* diagnoses); André, 1882b: 208 (Europe & Algeria species key); Dalla Torre, 1893: 172, 175 (*Plagiolepis*, **Rhopalomyrmex*, catalogue); Forel, 1894a: 414 (India & Sri Lanka species key); Bingham, 1903: 320 (India, Sri Lanka & Burma species key); Arnold, 1920: 578 (diagnosis, subgenera key); Arnold, 1922: 579 (South Africa species key); Wheeler, W.M. 1922a: 211, 696, 928, 1035 (diagnosis, subgenera key, Afrotropical, Malagasy catalogues); Emery, 1925b: 19 (diagnosis, catalogue); Emery, 1925b: 22 (*P. (Anacantholepis)* diagnosis, catalogue); Stitz, 1939: 231 (Germany species key); Kratochvíl, 1941: 98 (Central Europe species key); Novák & Sadil, 1941: 98 (Central Europe species key); Chapman & Capco, 1951: 212, 213 (Asia *Anacantholepis*, *Plagiolepis* checklists); Bernard, 1967: 272 (diagnosis, Western Europe species key); Kempf, 1972a: 205 (Neotropical catalogue); Kutter, 1977b: 185 (Switzerland species key); Collingwood, 1978: 89 (Iberian Peninsula species key); Smith, D.R. 1979: 1422 (North America, catalogue); Gösswald, 1985: 264 (Germany species key); Collingwood, 1985: 297 (Saudi Arabia species key); Arakelian, 1994: 78 (Armenia species key); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 334 (catalogue); Wu, J. & Wang, 1995: 130 (China species key); Radchenko, 1996a: 178 (Central & Southern Palaearctic species key); Collingwood & Agosti, 1996: 362 (Saudi Arabia species key); Seifert, 1996: 178 (Central Europe species key); Collingwood & Prince, 1998: 22 (Portugal species key); Shattuck, 1999: 106 (Australia synopsis).

Genus *PRENOLEPIS* tribal transfer

Prenolepis Mayr, 1861: 52. Type-species: *Tapinoma nitens*, by subsequent designation of Bingham, 1903: 325.

Taxonomic history

[Type-species not *Formica imparis*, unjustified subsequent designation by Emery, 1906b: 134, repeated in Wheeler, W.M. 1911b: 171 and Wheeler, W.M. 1922a: 940.]

- Prenolepis* in Formicinae: Mayr, 1861: 52 [Formicidae]; Mayr, 1862: 652 [Formicidae]; Mayr, 1865: 7 [Formicidae]; Mayr, 1868b: 32 [Formicidae].
- Prenolepis* in Camponotinae: Forel, 1878: 377 [Camponotidae]; Emery & Forel, 1879: 453 [Camponotidae]; Dalla Torre, 1893: 177.
- Prenolepis* in Camponotinae, Camponotini: Forel, 1886b: 209.
- Prenolepis* in Camponotinae, Formicini: Forel, 1893a: 165; Forel, 1895a: 103; Emery, 1895e: 772; Forel, 1899: 125; Wheeler, W.M. 1910d: 143.
- Prenolepis* in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.
- Prenolepis* in Camponotinae, Prenolepidini: Forel, 1912f: 89; Wheeler, W.M. 1915e: 117; Forel, 1917: 249; Arnold, 1922: 605.
- Prenolepis* in Formicinae, Prenolepidini: Wheeler, W.M. 1922a: 697; Chapman & Capco, 1951: 219; Hölldobler & Wilson, 1990: 18 (anachronism).
- Prenolepis* in Formicinae, Acanthomyopsini: Donisthorpe, 1943c: 685.
- Prenolepis* in Formicinae, Brachymyrmecini: Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1976: 101; Wheeler, G.C. & Wheeler, J. 1985: 258.
- Prenolepis* in Formicinae, Lasiini: Emery, 1925b: 224; Stitz, 1939: 379; Kempf, 1972a: 209; Smith, D.R. 1979: 1444; Dlussky & Fedoseeva, 1988: 77; Jaffe, 1993: 14; Bolton, 1994: 50.
- Prenolepis* in Formicinae, *Lasius* genus group: Agosti, 1991: 296.

Genus references

- Roger, 1863b: 10 (catalogue); Mayr, 1863: 451 (catalogue); Mayr, 1865: 7 (diagnosis); Mayr, 1867a: 71 (diagnosis); Mayr, 1870b: 947 (all species key); Forel, 1878: 377 (diagnosis); André, 1882b: 203 (Europe & Algeria species key); Cresson, 1887: 257 (U.S.A. catalogue); Dalla Torre, 1893: 177 (catalogue); Bingham, 1903: 326 (India, Sri Lanka & Burma species key); Emery, 1910a: 127 (Palearctic species key); Arnold, 1922: 605 (diagnosis); Wheeler, W.M. 1922a: 216, 697, 940 (diagnosis, subgenera key, Afrotropical catalogue); Emery, 1925b: 224 (diagnosis, catalogue); Creighton, 1950a: 410 (North America species review); Chapman & Capco, 1951: 219 (Asia checklist); Kempf, 1972a: 209 (Neotropical catalogue); Smith, D.R. 1979: 1442 (North America catalogue); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 363 (catalogue); Wu, J. & Wang, 1995: 137 (China species key); Xu, 1995c: 338 (Southern & Eastern Asia species key); Fontenla Rizo, 2000: 81 (Antilles Is species key); Zhou, 2001: 170 (China, Guangxi species key).

Genus *PSEUDAPHOMOMYRMEX* tribal transfer

- Pseudaphomomyrmex* Wheeler, W.M. 1920: 53. Type-species: *Aphomomyrmex emeryi*, by original designation.

Taxonomic history

- Pseudaphomomyrmex* in Formicinae, Plagiolepidini: Wheeler, W.M. 1922a: 695; Chapman & Capco, 1951: 214; Wheeler, G.C. & Wheeler, J. 1985: 258.
- Pseudaphomomyrmex* in Formicinae, Dimorphomyrmecini: Donisthorpe, 1943d: 721 (error).
- Pseudaphomomyrmex incertae sedis* in Formicinae: Dlussky & Fedoseeva, 1988: 77.
- Pseudaphomomyrmex* in Formicinae, Myrmelachistini: Hölldobler & Wilson, 1990: 18.
- Pseudaphomomyrmex* in Formicinae, Brachymyrmecini: Bolton, 1994: 50.
- Pseudaphomomyrmex* as junior synonym of *Aphomomyrmex*: Emery, 1925b: 44; Donisthorpe, 1943d: 721.
- Pseudaphomomyrmex* as genus: Wheeler, W.M. 1920: 53; Chapman & Capco, 1951: 214; Bolton, 1994: 50; Bolton, 1995b: 369.

Genus references

- Wheeler, W.M. 1922a: 695 (diagnosis, in key).

Genus *PSEUDOLASIUS* tribal transfer

- Pseudolasius* Emery, 1887a: 244. Type-species: *Formica familiaris*, by subsequent designation of Bingham, 1903: 337.

Taxonomic history

- Pseudolasius* in Camponotinae: Dalla Torre, 1893: 180.
- Pseudolasius* in Camponotinae, Formicini: Forel, 1893a: 165; Emery, 1895e: 772; Forel, 1912f: 89; Wheeler, W.M. 1910d: 143; Wheeler, W.M. 1915e: 133; Forel, 1917: 249.
- Pseudolasius* in Formicinae, Formicini: Wheeler, W.M. 1922a: 698; Chapman & Capco, 1951: 203; Wheeler, G.C. & Wheeler, J. 1985: 258.
- Pseudolasius* in Formicinae, Acanthomyopsini: Donisthorpe, 1943d: 722.
- Pseudolasius* in Formicinae, Lasiini: Emery, 1925b: 214; all subsequent authors except the post-1925 entries above and the entry below; Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50.
- Pseudolasius* in Formicinae, *Pseudolasius* genus group: Agosti, 1991: 296.

Junior synonym of *PSEUDOLASIUS*

- Nesolasius* Wheeler, W.M. 1935b: 50 [as subgenus of *Pseudolasius*]. Type-species: *Pseudolasius (Nesolasius) typhlops*, by original designation.

Taxonomic history

- Nesolasius* as junior synonym of *Pseudolasius*: Brown, 1973b: 183 [provisional]; Bolton, 1994: 50.

Genus references

- Dalla Torre, 1893: 180 (catalogue); Bingham, 1903: 337 (diagnosis); Emery, 1911a: 214 (all species key); Wheeler, W.M. 1922a: 218, 943 (diagnosis, Afrotropical catalogue); Emery, 1925b: 214 (diagnosis,

catalogue); Menozzi, 1924: 226 (Afrotropical species key); Chapman & Capco, 1951: 203 (Asia checklist); Taylor & Brown, D.R. 1985: 144 (Australia catalogue); Taylor, 1987a: 66 (Australia checklist); Agosti, 1991: 296 (*Pseudolasius* genus group diagnosis); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 369 (catalogue); Wu, J. & Wang, 1995: 134 (China species key); Xu, 1997: 2 (China species key); Shattuck, 1999: 112 (Australia synopsis); Zhou, 2001: 184 (China, Guangxi species key).

Genus *TAPINOLEPIS* stat. n.

Tapinolepis Emery, 1925b: 18 [as subgenus of *Anoplolepis*]. Type-species: *Plagiolepis tumidula*, by monotypy. [Appendix 1.1, p. 267.]

Taxonomic history

Tapinolepis as junior synonym of *Anoplolepis*: Brown, 1973b: 185 [provisional].

Junior synonym of *TAPINOLEPIS*

Mesanoopolepis Santschi, 1926a: 14 [as subgenus of *Anoplolepis*]. Type-species: *Plagiolepis simulans*, by original designation. Syn. n. [Appendix 1.1, p. 267.]

Taxonomic history

Mesanoopolepis as junior synonym of *Anoplolepis*: Brown, 1973b: 182 [provisional].

Genus references

See under *Anoplolepis*.

Tribe MYRMOTERATINI

Myrmoteratii Emery, 1895e: 772. Type-genus: *Myrmoteras*.

Taxonomic history

Myrmoteratini as tribe of Camponotinae: Emery, 1895e: 772 [*Myrmoteratii*]; Wheeler, W.M. 1910d: 143 [*Myrmoteratii*].

Myrmoteratini as tribe of Gesomyrmicinae: Ashmead, 1905b: 384.

Myrmoteratini as tribe of Formicinae: Wheeler, W.M. 1922a: 692; Emery, 1925b: 36; all subsequent authors. [*Taxonomy*, p. 23.]

Junior synonym of MYRMOTERATINI

Myrmoteratini Forel, 1912f: 88. Type-genus: *Myrmoteras*.

Taxonomic history

Myrmoteratini as tribe of Camponotinae: Forel, 1912f: 88; Forel, 1917: 248.

Myrmoteratini as junior homonym and junior synonym of *Myrmoteratini* Emery: Bolton, 1995b: 13.

Genus: *Myrmoteras*.

Tribe and genus references

Bingham, 1903: 313 (diagnosis); Emery, 1925b: 36 (diagnosis, catalogue); Creighton, 1930a: 184 (all species key); Wheeler, W.M. 1933a: 75 (all species key); Chapman & Capco, 1951: 209 (Asia checklist); Gregg, 1954: 25 (all species key); Moffett, 1985: 17 (diagnosis, all species revision, key); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Agosti, 1992: 405 (diagnosis, review of genus, Malesian species key); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 287 (catalogue).

Genus of Myrmoteratini

Genus *MYRMOTERAS*

Myrmoteras Forel, 1893e: 607. Type-species: *Myrmoteras binghamii*, by monotypy.

Taxonomic history

[*Myrmoteras* also described as new by Forel, 1894a: 418.]

Myrmoteras in Camponotinae: Forel, 1894a: 420.

Myrmoteras in Camponotinae, *Myrmoteratini*: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143; Forel, 1917: 248.

Myrmoteras in Gesomyrmicinae, *Myrmoteratini*: Ashmead, 1905b: 384.

Myrmoteras in Formicinae, *Myrmoteratini*: Wheeler, W.M. 1922a: 694; Emery, 1925b: 36; all subsequent authors except the following.

Myrmoteras in Formicinae, *Oecophylla* genus group: Agosti, 1991: 295.

Subgenera of *MYRMOTERAS* include the nominal plus the following.

Subgenus *MYRMOTERAS* (*MYAGROTHERAS*)

Myagroteras Moffett, 1985b: 31 [as subgenus of *Myrmoteras*]. Type-species: *Myrmoteras donisthorpei*, by original designation.

Genus references: see above.

Tribe GESOMYRMECINI

Gesomyrmicinae Ashmead, 1905b: 384. Type-genus: *Gesomyrmex*.

Taxonomic history

Gesomyrmecini as subfamily of Formicidae: Ashmead, 1905b: 384 [Gesomyrmicinae].

Gesomyrmecini as tribe of Formicinae: Wheeler, G.C. & Wheeler, J. 1976: 62; Wheeler, G.C. & Wheeler, J. 1985: 258; Bolton, 1994: 50. [*Taxonomy*, p. 23.]

Junior synonyms of GESOMYRMECINI

Dimorphomyrmex Emery, 1895e: 772. Type-genus: *Dimorphomyrmex* (junior synonym of *Gesomyrmex*).

Taxonomic history

Dimorphomyrmex as tribe of Camponotinae: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143; Forel, 1917: 232 [*Dimorphomyrmecini*].

Dimorphomyrmex as tribe of Formicinae: Wheeler, W.M. 1922a: 693 [*Dimorphomyrmecini*]; Emery, 1925b: 39 [*Dimorphomyrmecini*, incorrectly as senior synonym of *Gesomyrmecini*].

Dimorphomyrmex as junior synonym of *Gesomyrmecini*: Wheeler, W.M. 1929a: 12.

Gesomyrmini Forel, 1912f: 89 (diagnosis in key). Type-genus: *Gesomyrmex*.

Taxonomic history

Gesomyrmini as tribe of Camponotinae: Forel, 1912f: 89; Wheeler, W.M. 1915e: 107; Forel, 1917: 249 [*Gesomyrmecini*]; Wheeler, W.M. 1922a: 693 [*Gesomyrmecini*].

Gesomyrmini as tribe of Formicinae: Chapman & Capco, 1951: 208 [*Gesomyrmecini*]; Dlussky & Fedoseeva, 1988: 77 [*Gesomyrmini*].

Gesomyrmini as junior homonym and junior synonym of *Gesomyrmecini* Ashmead: Bolton, 1994: 50.

Santschiellini Forel, 1917: 232. Type-genus: *Santschiella*. Syn. n.

Taxonomic history

Santschiellini as tribe of Camponotinae: Forel, 1917: 232.

Santschiellini as tribe of Formicinae: Wheeler, W.M. 1922a: 692; Emery, 1925b: 48; all subsequent authors.

**Sicelomyrmecini* Wheeler, W.M. 1929a: 12. Type-genus: **Sicelomyrmex*. Syn. n.

Taxonomic history

Sicelomyrmecini* as tribe of Formicinae: Wheeler, W.M. 1929a: 12; Brown & Carpenter, 1979: 423 [Sicelomyrmecini*]; Bolton, 1994: 51.

Genera (extant): *Gesomyrmex*, *Santschiella*.

Genus (extinct): **Sicelomyrmex*.

Genus *incertae sedis*: **Prodimorphomyrmex*.

Tribe and genus *Gesomyrmex* references

Forel, 1878: 376 (diagnosis); Dalla Torre, 1893: 175, 176 (*Gesomyrmex*, *Dimorphomyrmex* catalogues); Emery, 1925b: 39 (diagnosis, genera key, catalogue); Emery, 1925b: 46 (*Dimorphomyrmex* diagnosis, catalogue); Emery, 1925b: 47 (*Gesomyrmex* diagnosis, catalogue); Wheeler, W.M. 1929a: 10 (checklist); Cole, 1949: 76 (all species key); Chapman & Capco, 1951: 208 (Asia checklist); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 62 (larvae, review & synthesis); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 207 (catalogue).

Genera of *Gesomyrmecini*

Genus *GESOMYRMEX*

Gesomyrmex Mayr, 1868b: 50. Type-species: **Gesomyrmex hoernesii*, by monotypy.

Taxonomic history

Gesomyrmex in Formicinae: Mayr, 1868b: 50 [Formicidae].

Gesomyrmex in Camponotinae: Forel, 1878: 367 [Camponotidae]; Dalla Torre, 1893: 175.

Gesomyrmex in Camponotinae, Camponotini: Forel, 1893a: 165.

Gesomyrmex in Camponotinae, Oecophyllini: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143.

Gesomyrmex in Gesomyrmecinae, Gesomyrmecini: Ashmead, 1905b: 384.

Gesomyrmex in Camponotinae, Gesomyrmecini: Forel, 1912f: 89; Wheeler, W.M. 1915e: 107; Forel, 1917: 249.

Gesomyrmex in Formicinae, Dimorphomyrmecini: Emery, 1925b: 47; Donisthorpe, 1943c: 647.

Gesomyrmex in Formicinae, Gesomyrmecini: Wheeler, W.M. 1922a: 697; Wheeler, W.M. 1929a: 12; all subsequent authors except below; Bolton, 1994: 50.

Gesomyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Junior synonyms of *GESOMYRMEX*

Dimorphomyrmex André, 1892: 49. Type-species: *Dimorphomyrmex janeti* (junior synonym of *Gesomyrmex chaperi*), by monotypy.

Taxonomic history

Dimorphomyrmex in Camponotinae: Dalla Torre, 1893: 176.

Dimorphomyrmex in Camponotinae, Camponotini: Forel, 1893a: 165.

Dimorphomyrmex in Camponotinae, Dimorphomyrmecini: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143; Forel, 1917: 248.

Dimorphomyrmex in Gesomyrmecinae, Gesomyrmecini: Ashmead, 1905b: 384.

Dimorphomyrmex in Camponotinae, Gesomyrmecini: Forel, 1912f: 89.

Dimorphomyrmex in Camponotinae, Oecophyllini: Wheeler, W.M. 1915e: 104.

Dimorphomyrmex in Formicinae, Dimorphomyrmecini: Wheeler, W.M. 1922a: 694; Emery, 1925b: 46; Donisthorpe, 1943c: 639.

Dimorphomyrmex as junior synonym of *Gesomyrmex*: Wheeler, W.M. 1929a: 1.

Gaesomyrmex Dalla Torre, 1893: 175, unjustified emendation of *Gesomyrmex*.

Taxonomic history

Gaesomyrmex as junior synonym of *Gesomyrmex*: Forel, 1893a: 167.

Genus references: see above.

Genus *SANTSCHIELLA* tribal transfer

Santschiella Forel, 1916: 434. Type-species: *Santschiella kohli*, by monotypy.

Taxonomic history

Santschiella in Camponotinae, Santschiellini: Forel, 1917: 232.

Santschiella in Formicinae, Santschiellini: Wheeler, W.M. 1922a: 694, 928; Emery, 1925b: 48; all subsequent authors.

Genus references

Emery, 1925b: 48 (diagnosis, catalogue).

Genus **SICILOMYRMEX* tribal transfer

**Sicelomyrmex* Wheeler, W.M. 1915e: 111. Type-species: **Gesomyrmex corniger*, by original designation.

Taxonomic history

[**Sicilomyrmex*: Brown & Carpenter, 1979: 423 (emendation of spelling).]

**Sicilomyrmex* in Camponotinae, Gesomyrmecini: Wheeler, W.M. 1915e: 111.

**Sicilomyrmex* in Formicinae, Gesomyrmecini: Donisthorpe, 1943d: 725; Dlussky & Fedoseeva, 1988: 77.

**Sicilomyrmex* in Formicinae, **Sicilomyrmecini*: Brown & Carpenter, 1979: 423; Bolton, 1994: 51; Bolton, 1995b: 383..

Genus references

Brown & Carpenter, 1979: 423 (review of genus).

Genus *incertae sedis* in Gesomyrmecini**Genus **PRODIMORPHOMYRMEX***

**Prodimorphomyrmex* Wheeler, W.M. 1915e: 111. Type-species: **Prodimorphomyrmex primigenius*, by monotypy.

Taxonomic history

**Prodimorphomyrmex* in Camponotinae, Gesomyrmecini: Wheeler, W.M. 1915e: 111.

**Prodimorphomyrmex* in Formicinae, Brachymyrmecini: Wheeler, W.M. 1929a: 12.

**Prodimorphomyrmex* in Formicinae, Gesomyrmecini: Donisthorpe, 1943c: 687; Dlussky & Fedoseeva, 1988: 77 [Gesomyrmecini]; Bolton, 1994: 50; Bolton, 1995b: 368.

Tribe MYRMECORHYNCHINI stat. rev.

Myrmecorhynchini (sic) Wheeler, W.M. 1917: 19. Type-genus: *Myrmecorhynchus*.

Taxonomic history

Myrmecorhynchini as tribe of Camponotinae: Wheeler, W.M. 1917: 19 [Myrmecorhynchini].

Myrmecorhynchini as tribe of Formicinae: Emery, 1925b: 35; Wheeler, G.C. & Wheeler, J. 1970: 651; Wheeler, G.C. & Wheeler, J. 1976: 64; Wheeler, G.C. & Wheeler, J. 1985: 258; Hölldobler & Wilson, 1990: 17.

Myrmecorhynchini as junior synonym of Melophorini: Wheeler, W.M. 1935c: 69 (in text); Brown, 1955b: 471; subsequent authors except for above; Bolton, 1994: 50. [*Taxonomy*, p. 24.]

Genera: *Myrmecorhynchus*, *Notoncus*, *Pseudonotoncus*.

Tribe references

Emery, 1925b: 35 (diagnosis, catalogue); Wheeler, W.M. 1922a: 694 (genera key (as part of Melophorini)); Brown, 1955b: 471 (review of tribe (as part of Melophorini)); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 64 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 17 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995b: 12 (catalogue).

Genera of Myrmecorhynchini**Genus *MYRMECORHYNCHUS***

Myrmecorhynchus André, 1896: 253. Type-species: *Myrmecorhynchus emeryi*, by monotypy.

Taxonomic history

Myrmecorhynchus in Camponotinae, Camponotini: Wheeler, W.M. 1910d: 144.

Myrmecorhynchus in Camponotinae, Oecophyllini: Forel, 1912f: 89; Forel, 1917: 250.

Myrmecorhynchus in Camponotinae, Myrmecorhynchini: Wheeler, W.M. 1917: 19.

Myrmecorhynchus in Formicinae, Myrmecorhynchini: Emery, 1925b: 35; Wheeler, G.C. & Wheeler, J. 1985: 258 (anachronism).

Myrmecorhynchus in Formicinae, Melophorini: Wheeler, W.M. 1922a: 694; Wheeler, W.M. 1935c: 71; all subsequent authors except the following.

Myrmecorhynchus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus references

Wheeler, W.M. 1917: 15 (diagnosis, review of genus); Emery, 1925b: 35 (diagnosis, catalogue); Taylor & Brown, D.R. 1985: 125 (Australia catalogue); Taylor, 1987a: 47 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 275 (catalogue); Shattuck, 1999: 97 (Australia synopsis).

Genus NOTONCUS tribal transfer

Notoncus Emery, 1895c: 352. Type-species: *Camponotus ectatommoides*, by original designation.

Taxonomic history

Notoncus in Camponotinae, Plagiolepidini: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143.

Notoncus in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.

Notoncus in Camponotinae, Melophorini: Forel, 1912f: 88; Forel, 1917: 248.

Notoncus in Formicinae, Melophorini: Wheeler, W.M. 1922a: 694; Emery, 1925b: 14; Wheeler, W.M. 1935c: 71; Donisthorpe, 1943c: 675; Brown, 1955b: 477 all subsequent authors except the following.

Notoncus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Junior synonym of NOTONCUS

Diodontolepis Wheeler, W.M. 1920: 53. Type-species: *Melophorus spinisquamis*, by original designation.

Taxonomic history

Diodontolepis in Formicinae, Melophorini: Wheeler, W.M. 1922a: 694; Emery, 1925b: 11; Wheeler, W.M. 1935c: 71; all subsequent authors.

Diodontolepis as junior synonym of *Melophorus*: Emery, 1925b: 11.

Diodontolepis as genus: Wheeler, W.M. 1920: 53; Wheeler, W.M. 1935c: 71; Donisthorpe, 1943c: 639; Wheeler, G.C. & Wheeler, J. 1985: 258 (anachronism).

Diodontolepis as junior synonym of *Notoncus*: Brown, 1955b: 477; Taylor & Brown, D.R. 1985: 125; Taylor, 1987a: 47; Taylor, 1992: 61; Bolton, 1994: 50.

Genus references

Emery, 1925b: 14 (diagnosis, catalogue); Brown, 1955b: 477 (all species revision, key); Taylor & Brown, D.R. 1985: 125 (Australia catalogue); Taylor, 1987a: 47 (Australia checklist); Taylor, 1992: 61 (review, partial key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 292 (catalogue); Shattuck, 1999: 99 (Australia synopsis).

Genus PSEUDONOTONCUS tribal transfer

Pseudonotoncus Clark, 1934c: 64. Type-species: *Pseudonotoncus hirsutus*, by original designation.

Taxonomic history

Pseudonotoncus in Formicinae, Melophorini: Wheeler, W.M. 1935c: 71; all subsequent authors except the following.

Pseudonotoncus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus references

Taylor & Brown, D.R. 1985: 144 (Australia catalogue); Taylor, 1987a: 66 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 377 (catalogue); Shattuck, 1999: 113 (Australia synopsis).

Tribe OECOPHYLLINI

Oecophyllini Emery, 1895e: 772. Type-genus: *Oecophylla*.

Taxonomic history

Oecophyllini as tribe of Camponotinae: Emery, 1895e: 772 [Oecophyllini]; Wheeler, W.M. 1910d: 143 [Oecophyllini]; Ashmead, 1905b: 384; Wheeler, W.M. 1915e: 100; Arnold, 1922: 608.

Oecophyllini as tribe of Formicinae: Wheeler, W.M. 1922a: 693; Emery, 1925b: 49; all subsequent authors. [*Taxonomy*, p. 25.]

Junior synonym of OECOPHYLLINI

Oecophyllini Forel, 1912f: 89 (diagnosis in key). Type-genus: *Oecophylla*.

Taxonomic history

Oecophyllini as tribe of Camponotinae: Forel, 1912f: 89; Wheeler, W.M. 1915e: 113; Forel, 1917: 250.

Oecophyllini Forel as junior homonym and junior synonym of Oecophyllini Emery: Bolton, 1995b: 14.

Genus: Oecophylla**Tribe and genus references**

Mayr, 1862: 693 (diagnosis); Roger, 1863b: 10 (catalogue); Mayr, 1863: 438 (catalogue); Mayr, 1865: 7 (diagnosis); Mayr, 1867a: 70 (diagnosis); Forel, 1878: 371 (diagnosis); Dalla Torre, 1893: 176 (catalogue); Emery, 1895e: 772 (synoptic classification); Bingham, 1903: 310 (diagnosis); Arnold, 1922: 608 (diagnosis); Forel, 1917: 250 (synoptic classification); Wheeler, W.M. 1922a: 224, 228, 945 (diagnosis, species key, Afrotropical catalogue); Emery, 1925b: 49 (diagnosis, catalogue); Chapman & Capco, 1951: 220 (Asia checklist); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 63 (larvae, review & synthesis); Taylor & Brown, D.R. 1985: 127 (Australia catalogue); Taylor, 1987a: 49 (Australia checklist); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Agosti, 1991: 295 (*Oecophylla* genus group diagnosis); Bolton, 1994: 51 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 298 (catalogue); Shattuck, 1999: 102 (Australia synopsis).

Genus of Oecophyllini**Genus OECOPHYLLA**

Oecophylla Smith, F. 1860b: 101. Type-species: *Formica virescens* (junior synonym of *Oecophylla smaragdina*), by subsequent designation of Bingham, 1903: 310.

Taxonomic history

Oecophylla in Formicinae: Mayr, 1862: 651 [Formicidae]; Mayr, 1865: 7 [Formicidae]; Mayr, 1868b: 30 [Formicidae].

Oecophylla in Camponotinae: Forel, 1878: 361 [Camponotidae]; Dalla Torre, 1893: 176.

Oecophylla in Camponotinae, Camponotini: Forel, 1886b: 199; Forel, 1893a: 165.

Oecophylla in Camponotinae, Oecophyllini: Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 143; Forel, 1912f: 89; Wheeler, W.M. 1915e: 113; Forel, 1917: 250; Arnold, 1922: 608.

Oecophylla in Formicinae, Oecophyllini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 50; all subsequent authors except the following.

Oecophylla in Formicinae, *Oecophylla* genus group: Agosti, 1991: 295.

Genus references: see above.

Tribe GIGANTIOPINI

Gigantiopini Ashmead, 1905b: 384. Type-genus: *Gigantiops*.

Taxonomic history

Gigantiopini as tribe of Gesomyrmicinae: Ashmead, 1905b: 384.

Gigantiopini as tribe of Formicinae: Wheeler, W.M. 1922a: 692; Emery, 1925b: 48; all subsequent authors. [*Taxonomy*, p. 25.]

Genus: *Gigantiops*.

Tribe and genus references

Roger, 1863b: 11 (catalogue); Mayr, 1865: 9 (diagnosis); Forel, 1878: 370 (diagnosis); Dalla Torre, 1893: 175 (catalogue); Emery, 1925b: 48 (diagnosis, catalogue); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Kempf, 1972a: 110 (catalogue); Wheeler, G.C. & Wheeler, J. 1976: 63 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 207 (catalogue).

Genus of Gigantiopini

Genus GIGANTIOPS

Gigantiops Roger, 1863b: 11. Type-species: *Formica destructor*, by monotypy.

Taxonomic history

Gigantiops in Formicinae: Mayr, 1865: 9 [Formicidae].

Gigantiops in Camponotinae: Forel, 1878: 370 [Camponotidae]; Dalla Torre, 1893: 175.

Gigantiops in Gesomyrmicinae, Gigantiopini: Ashmead, 1905b: 384.

Gigantiops in Camponotinae, Oecophyllini: Emery, 1895e: 772; Wheeler, W.M. 1910d: 143; Forel, 1912f: 89; Forel, 1917: 250.

Gigantiops in Formicinae, Gigantiopini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 48; all subsequent authors except the one below; Bolton, 1994: 50.

Gigantiops in Formicinae, *Oecophylla* genus group: Agosti, 1991: 295.

Genus references: see above.

Tribe CAMPONOTINI

Camponotidae Forel, 1878: 364. Type-genus: *Camponotus*.

Taxonomic history

Camponotini as subfamily of Formicidae: Forel, 1878: 364 [Camponotidae]; Forel, 1879: 56

[Camponotidae]; Nasonov, 1889: 9 [Camponotidae]; Forel, 1891b: 13 [Camponotidae]; Forel,

1892g: 219 [Camponotidae]; Forel, 1893a: 165 [Camponotinae]; Dalla Torre, 1893: 171

[Camponotinae]; Emery, 1895e: 771 [subfamily spelled Camponotini]; Emery, 1896a: 187

[Camponotinae]; Forel, 1899: 123 [Camponotinae]; Bingham, 1903: 308 [Camponotinae]; Ashmead,

1905b: 384 [Camponotinae]; Wheeler, W.M. 1910d: 143 [Camponotinae]; Forel, 1912f: 87

[Camponotinae]; Forel, 1915c: 45 [Camponotinae]; Donisthorpe, 1915: 184 [Camponotinae];

Escherich, 1917: 2 [Camponotini]; Forel, 1917: 248 [Camponotinae]; Arnold, 1920: 551

[Camponotinae]; Soudek, 1922: 61 [Camponotinae].

Camponotini as tribe of Formicidae: André, 1882a: 126 [Camponotidae].

Camponotini as family: Emery, 1894b: 372 [Camponotidae].

Camponotini as tribe of Camponotidae: Forel, 1886b: 141 [Camponotii]; Forel, 1891b: 13 [Camponotii].

Camponotini as tribe of Camponotinae: Forel, 1893a: 165 [Camponotii]; Forel, 1895a: 101 [Camponoti];

Emery, 1895e: 772 [Camponotii]; Forel, 1899: 130 [Camponotii]; Ruzsky, 1902b: 4 [subfamily

spelled Camponotini]; Ruzsky, 1905: 110 [Camponotii]; Wheeler, W.M. 1910d: 144 [Camponotii].

Camponotini as tribe of Camponotinae: Ashmead, 1905b: 384; Wheeler, 1915g: 813 [Camponotides];

Wheeler, W.M. 1915e: 135; Forel, 1915c: 45; Forel, 1917: 250; Arnold, 1922: 610; Soudek, 1922:

61.

Camponotini as tribe of Formicinae: Bondroit, 1918: 65; Wheeler, W.M. 1922a: 693; Emery, 1925b: 53; all subsequent authors. [*Taxonomy*, p. 26.]

Junior synonym of CAMPONOTINI

Polyrhachidini Ashmead, 1905b: 384. Type-genus: *Polyrhachis*.

Taxonomic history

Polyrhachidini as tribe of Camponotinae: Ashmead, 1905b: 384.

Polyrhachidini as junior synonym of Camponotini: Bolton, 1994: 50.

Genera (extant): *Calomyrmex*, *Camponotus*, *Echinopla*, *Forelophilus*, *Opisthopsis*, *Overbeckia*, *Phasmomyrmex*, *Polyrhachis*.

Genera (extinct): **Camponotites*, **Chimaeromyrma*, **Pseudocamponotus*.

Tribe references

Forel, 1878: 364, 367 (diagnosis, genus groups); Forel, 1893a: 165 (diagnosis, synoptic classification); Forel, 1917: 250 (synoptic classification); Wheeler, W.M. 1922a: 700 (genera, key); Wheeler, W.M. 1922a: 948, 1039 (Afrotropical, Malagasy catalogues); Emery, 1925b: 53 (diagnosis, genera key, catalogue); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 65 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 18 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1039 (census); Bolton, 1995b: 9 (catalogue).

Genera of Camponotini

Genus *CALOMYRMEX*

Calomyrmex Emery, 1895e: 772. Type-species: *Formica laevisissima*, by monotypy.

Taxonomic history

Calomyrmex in Camponotinae, Camponotini: Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 250.

Calomyrmex in Formicinae, Camponotini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 174; all subsequent authors except the following.

Calomyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus references

Emery, 1896a: 378 (catalogue); Emery, 1898: 227 (additions to 1896a catalogue); Emery, 1925b: 174 (diagnosis, catalogue); Chapman & Capco, 1951: 220 (Asia checklist); Taylor & Brown, D.R. 1985: 108 (Australia catalogue); Taylor, 1987a: 10 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 82 (catalogue); Shattuck, 1999: 89 (Australia synopsis).

Genus **CAMPONOTITES*

**Camponotites* Dlussky, 1981: 76. Type-species: **Camponotites macropterus*, by monotypy.

Taxonomic history

[It is unclear whether this was intended as a genus-group name or as a collective group name. However, as the presentation was originally "genus **Camponotites*", the former is accepted: Bolton, 1995b: 23.]

**Camponotites incertae sedis* in Formicidae: Hölldobler & Wilson, 1990: 18.

**Camponotites* in Formicinae, Camponotini: Bolton, 1994: 50; Bolton, 1995b: 83.

Genus *CAMPONOTUS*

Camponotus Mayr, 1861: 35. Type-species: *Formica ligniperda*, by subsequent designation of Bingham, 1903: 347.

Taxonomic history

[Type-species not *C. herculeanus*, unjustified subsequent designation by Forel, 1914a: 259, repeated in Arnold, 1922: 612.]

Camponotus in Formicinae: Mayr, 1861: 35 [Formicidae]; Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 6 [Formicidae]; Mayr, 1868b: 26 [Formicidae].

Camponotus in Camponotinae: Forel, 1878: 367 [Camponotidae]; Emery & Forel, 1879: 447 [Camponotidae]; Forel, 1892g: 223 [Camponotidae]; Dalla Torre, 1893: 171.

Camponotus in Camponotinae, Camponotini: Forel, 1886b: 141; Forel, 1893a: 165; Forel, 1895a: 101; Emery, 1895e: 772; Forel, 1899: 130; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Wheeler, W.M. 1915e: 138; Forel, 1917: 250; Arnold, 1922: 610.

Camponotus in Formicinae, Camponotini: Bondroit, 1918: 65; Wheeler, W.M. 1922a: 703; Emery, 1925b: 59; all subsequent authors except the following.

Camponotus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Camponotus as subgenus of *Formica*: Smith, F. 1871: 306.

Camponotus as genus: all authors except the above.

Junior synonyms of *CAMPONOTUS*

**Dryomyrmex* Wheeler, W.M. 1915e: 135. Type-species: **Dryomyrmex fuscipennis*, by original designation.

Taxonomic history

[This name is sometimes misspelled as **Dryomyrmex*, for example in Donisthorpe, 1920: 93 and Wheeler, W.M. 1929a: 12.]

**Dryomyrmex* in Camponotinae, Camponotini: Wheeler, W.M. 1915e: 135.

**Dryomyrmex* in Formicinae, Brachymyrmecini: Wheeler, W.M. 1929a: 12.

**Dryomyrmex* in Formicinae, Camponotini: Donisthorpe, 1943c: 641; Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50.

**Dryomyrmex* as junior synonym of *Camponotus*: Dlussky, 1997: 623.

**Shanwangella* Zhang, 1989: 307. Type-species: **Shanwangella palaeoptera*, by original designation.

Taxonomic history

**Shanwangella* as junior synonym of *Camponotus*: Hong & Wu, 2000: 20.

Subgenera of *CAMPONOTUS* include the nominal plus the following. All the subgenera were given as provisional junior synonyms of *Camponotus* by Brown, 1973b: 179 - 185. Brown's list was repeated in Hölldobler & Wilson, 1990: 18 but with all subgenera listed as junior synonyms; subgeneric status was reinstated in Bolton, 1994: 50. These consecutive entries are not repeated individually below.

Subgenus *CAMPONOTUS* (*COLOBOPSIS*)

Colobopsis Mayr, 1861: 38. Type-species: *Formica truncata*, by subsequent designation of Bingham, 1903: 342.

Taxonomic history

Colobopsis in Formicinae: Mayr, 1861: 38 [Formicidae]; Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 7 [Formicidae].

Colobopsis in Camponotinae: Forel, 1878: 368 [Camponotidae]; Emery & Forel, 1897: 449 [Camponotidae].

Colobopsis in Camponotinae, Camponotini: Forel, 1886b: 193; Emery, 1895e: 772; Ashmead, 1905b: 384.

Colobopsis in Formicinae, Camponotini: Bondroit, 1918: 65; Emery, 1925b: 144; all subsequent authors.

Colobopsis as genus: Mayr, 1861: 38; Mayr, 1862: 652; Mayr, 1865: 7; Mayr, 1870b: 940; Forel, 1878: 368; Forel, 1879: 125; Emery & Forel, 1879: 449; André, 1882b: 159; Bingham, 1903: 342; Forel, 1886b: 193; Ashmead, 1905b: 384; Bondroit, 1918: 66; Jaffe, 1993: 14 (anachronism).

Colobopsis as subgenus of *Camponotus*: Emery, 1889: 517; Dalla Torre, 1893: 219; Forel, 1893a: 165; Forel, 1893b: 435; Emery, 1895e: 772; Wheeler, W.M. 1904b: 139; Wheeler, W.M. 1910d: 144; Forel, 1912f: 90; Forel, 1914a: 263; Forel, 1917: 251; Emery, 1920a: 247; Arnold, 1922: 613; Wheeler, W.M. 1922a: 708; Emery, 1925b: 144; Donisthorpe, 1943c: 634; Creighton, 1950a: 390; Chapman & Capco, 1951: 222; Kempf, 1972a: 42; Smith, D.R., 1979: 1433.

Junior synonyms of *CAMPONOTUS* (*COLOBOPSIS*)

Condylomyrma Santschi, 1928c: 72 [as subgenus of *Camponotus*]. Type-species: *Camponotus* (*Condylomyrma*) *bryani*, by monotypy.

Taxonomic history

Condylomyrma as subgenus of *Camponotus*: Santschi, 1928c: 72.

Condylomyrma as junior synonym of *Colobopsis*: Wheeler, W.M. 1934c: 422 (in text).

[*Campylomyrma* Wheeler, W.M. 1934c: 421 (in text), incorrect subsequent spelling.]

Dolophra Wu, J. & Wang, 1994: 35. Type-species: *Dolophra politae*, by original designation. Syn. n. [Appendix 1.3, p. 268.]

Taxonomic history

Dolophra as genus: Wu, J. & Wang, 1994: 35; Wu, J. & Wang, 1995: 158.

Dolophra as junior synonym of *Camponotus*: Bolton, 1995b: 27.

Subgenus *CAMPONOTUS* (*MAYRIA*)

Mayria Forel, 1878: 369. Type-species: *Mayria madagascarensis* (junior secondary homonym in *Camponotus*, replaced by *Camponotus repens*), by monotypy.

Taxonomic history

Mayria in Camponotinae: Forel, 1878: 369 [Camponotidae]; Dalla Torre, 1893: 219.

Mayria in Camponotinae, Camponotini: Forel, 1893a: 165; Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144.

Mayria as subgenus of *Camponotus*: Forel, 1894b: 227; Forel, 1914a: 262; Forel, 1917: 251; Wheeler, W.M. 1922a: 706; Emery, 1925b: 121; all subsequent authors.

Junior synonym of *CAMPONOTUS* (*MAYRIA*)

Myrmosaga Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Camponotus kelleri*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Camponotus quadrimaculatus*, unjustified subsequent designation by Forel, 1914a: 260; repeated in Arnold, 1922: 613.]

Myrmosaga as subgenus of *Camponotus* Forel, 1912f: 92; Forel, 1914a: 260; Forel, 1917: 250; Emery, 1920a: 241; Arnold, 1922: 613; Wheeler, W.M. 1922a: 706; all subsequent authors.

Myrmosaga as junior synonym of *Mayria*: Emery, 1925b: 121.

Subgenus *CAMPONOTUS* (*RHINOMYRMEX*)

Rhinomyrmex Forel, 1886b: 192. Type-species: *Rhinomyrmex klaesii*, by monotypy.

Taxonomic history

Rhinomyrmex in Camponotinae: Forel, 1886b: 192 [Camponotii]; Dalla Torre, 1893: 219.

Rhinomyrmex in Camponotinae, Camponotini: Forel, 1893a: 165; Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144.

Rhinomyrmex as genus: Forel, 1886b: 192; Forel, 1893a: 165; Dalla Torre, 1893: 219; Emery, 1895e: 772; Wheeler, W.M. 1910d: 144.

Rhinomyrmex as subgenus of *Camponotus*: Emery, 1896a: 374; Forel, 1914a: 264; Forel, 1917: 251; Emery, 1920a: 247; Wheeler, W.M. 1922a: 708; Emery, 1925b: 142; all subsequent authors.

Subgenus *CAMPONOTUS* (*DENDROMYRMEX*)

Dendromyrmex Emery, 1895e: 772. Type-species: *Formica chartifex*, by subsequent designation of Wheeler, W.M. 1911b: 161.

Taxonomic history

Dendromyrmex in Camponotinae, Camponotini: Emery, 1895e: 772; Ashmead, 1905b: 384; Forel, 1912f: 89; Wheeler, W.M. 1910d: 144; Forel, 1917: 250.

Dendromyrmex in Formicinae, Camponotini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 172; all subsequent authors except the following.

Dendromyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Dendromyrmex as subgenus of *Camponotus*: Fernández, 2002: 51.

Subgenus *CAMPONOTUS* (*DINOMYRMEX*)

Dinomyrmex Ashmead, 1905b: 384. Type-species: *Formica gigas*, by original designation.

Taxonomic history

Dinomyrmex in Camponotinae, Camponotini: Ashmead, 1905b: 384.

Dinomyrmex as genus: Ashmead, 1905b: 384.

Dinomyrmex as subgenus of *Camponotus*: Forel, 1913b: 350; Forel, 1914a: 259; Forel, 1917: 250; Emery, 1920a: 236; Arnold, 1922: 612; Wheeler, W.M. 1922a: 704; Emery, 1925b: 69; all subsequent authors.

Junior synonym of *CAMPONOTUS* (*DINOMYRMEX*)

Myrmogigas Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Formica gigas*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

Myrmogigas as subgenus of *Camponotus*: Forel, 1912f: 91.

Myrmogigas as junior synonym of *Dinomyrmex*: Forel, 1913b: 350 (in text); Forel, 1914a: 259; Wheeler, W.M. 1922a: 704. [*Dinomyrmex* and *Myrmogigas* share the same type-species, synonymy is therefore absolute.]

Subgenus *CAMPONOTUS* (*TANAEMYRMEX*)

Tanaemyrmex Ashmead, 1905b: 384. Type-species: *Formica longipes* (junior primary homonym in *Formica*, replaced by *Camponotus etiolipes*), by original designation.

Taxonomic history

Tanaemyrmex in Camponotinae, Camponotini: Ashmead, 1905b: 384.

Tanaemyrmex as genus: Ashmead, 1905b: 384.

Tanaemyrmex as subgenus of *Camponotus*: Emery, 1925b: 75; all subsequent authors.

Junior synonym of *CAMPONOTUS* (*TANAEMYRMEX*)

Myrmoturba Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Formica maculata*, by subsequent designation of Wheeler, W.M. 1913a: 82.

Taxonomic history

Myrmoturba as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 259; Forel, 1917: 250; Emery, 1920a: 235; Arnold, 1922: 612; Wheeler, W.M. 1922a: 704.

Myrmoturba as junior synonym of *Tanaemyrmex*: Emery, 1925b: 75.

Subgenus *CAMPONOTUS* (*ORTHONOTOMYRMEX*)

Orthonotomyrmex Ashmead, 1906: 31.

Taxonomic history

[Replacement name for *Orthonotus* Ashmead, 1905b: 384; junior homonym of *Orthonotus* Westwood, in Stephens, 1829: 344 (Hemiptera). Type-species not *C. lateralis*, unjustified subsequent designation by Forel, 1914a: 264; repeated in Arnold, 1922: 613.]

Orthonotomyrmex as subgenus of *Camponotus*: Forel, 1913c: 350 (in text); Forel, 1914a: 264; Forel, 1917: 251; Emery, 1920a: 244; Arnold, 1922: 613; Wheeler, W.M. 1922a: 707; Emery, 1925b: 124; all subsequent authors.

Homonym replaced by *ORTHONOTOMYRMEX*

Orthonotus Ashmead, 1905b: 384. Type-species: *Formica sericea*, by original designation.

Taxonomic history

[Junior homonym of *Orthonotus* Westwood, in Stephens, 1829: 344 (Hemiptera).]

Orthonotus in Camponotinae, Camponotini: Ashmead, 1905b: 384.

Subgenus *CAMPONOTUS* (*MYRMAMBLYS*)

Myrmamblys Forel, 1912f: 90 [as subgenus of *Camponotus*]. Type-species: *Camponotus reticulatus*, by subsequent designation of Wheeler, W.M. 1913a: 80.

Taxonomic history

[Type-species not *Camponotus fastigatus*, unjustified subsequent designation by Forel, 1914a: 263; repeated in Arnold, 1922: 613.]

Myrmamblys as subgenus of *Camponotus*: Forel, 1912f: 90; Forel, 1914a: 263; Forel, 1917: 251; Emery, 1920a: 248; Arnold, 1922: 613; Wheeler, W.M. 1922a: 708; Emery, 1925b: 136; Santschi, 1926c: 601; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOTHRIX)

Myrmothrix Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Formica abdominalis* (junior primary homonym; *Formica atriceps* is first available replacement name), by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Formica rufipes*, unjustified subsequent designation by Forel, 1914a: 260.]

Myrmothrix as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 260; Forel, 1917: 250; Emery, 1920a: 236; Emery, 1925b: 107; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOSERICUS)

Myrmosericus Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Formica rufoglauca*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

Myrmosericus as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 259; Forel, 1917: 250; Emery, 1920a: 236; Arnold, 1922: 613; Wheeler, W.M. 1922a: 704; Emery, 1925b: 104; all subsequent authors.

[See note under *Myrmosaulus*.]

Subgenus CAMPONOTUS (MYRMOPHYMA)

Myrmophyma Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Camponotus capito*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Camponotus quadrisectus*, unjustified subsequent designation by Forel, 1914a: 261; repeated in Arnold, 1922: 612.]

Myrmophyma as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 261; Forel, 1917: 250; Emery, 1920a: 239; Arnold, 1922: 612; Wheeler, W.M. 1922a: 706; Emery, 1925b: 109; all subsequent authors.

Junior synonym of CAMPONOTUS (MYRMOPHYMA)

Myrmocamelus Forel, 1914a: 261 [as subgenus of *Camponotus*]. Type-species: *Formica ephippium*, by original designation.

Taxonomic history

[Type-species not *Camponotus gambeyi*, unjustified subsequent designation by Forel, 1922: 101. *Myrmocamelus* also described as new by Forel, 1915a: 102.]

Myrmocamelus as subgenus of *Camponotus*: Forel, 1914a: 261; Forel, 1915a: 102; Forel, 1917: 250; Forel, 1922: 101.

Myrmocamelus as junior synonym of *Myrmophyma*: Emery, 1920a: 257; Wheeler, W.M. 1921a: 18; Emery, 1925b: 109.

Subgenus CAMPONOTUS (MYRMOTREMA)

Myrmotrema Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Camponotus foraminosus*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

Myrmotrema as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 262; Forel, 1917: 250; Emery, 1920a: 245; Arnold, 1922: 613; Wheeler, W.M. 1922a: 707; Emery, 1925b: 130; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOBRACHYS)

Myrmobrachys Forel, 1912f: 91 [as subgenus of *Camponotus*]. Type-species: *Formica senex*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

Myrmobrachys as subgenus of *Camponotus*: Forel, 1912f: 91; Forel, 1914a: 262; Forel, 1917: 251; Emery, 1920a: 251; Wheeler, W.M. 1922a: 709; Emery, 1925b: 161; all subsequent authors.

Subgenus CAMPONOTUS (MYRMENTOMA)

Myrmentoma Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Formica lateralis*, by subsequent designation of Wheeler, W.M. 1913a: 80.

Taxonomic history

Myrmentoma as junior synonym of *Orthonotomyrmex*: Forel, 1913b: 350 (in text); Forel, 1914a: 264; Wheeler, W.M. 1922a: 970.

Myrmentoma as subgenus of *Camponotus*: Forel, 1912f: 92; Emery, 1920a: 243; Wheeler, W.M. 1922a: 707; Emery, 1925a: 62; Emery, 1925b: 116; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOSPHINCTA)

Myrmosphincta Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Formica sexguttata*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Formica cinerascens*, unjustified subsequent designation by Forel, 1914a: 265; repeated in Arnold, 1922: 614.]

Myrmosphincta as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 265; Forel, 1917: 251; Emery, 1920a: 238; Arnold, 1922: 614; Wheeler, W.M. 1922a: 708; Emery, 1925b: 151; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOTARSUS*)

Myrmotarsus Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Formica mistura*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Formica irritabilis*, unjustified subsequent designation by Forel, 1914a: 260.]

Myrmotarsus as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 260; Forel, 1917: 250; Emery, 1920a: 238; Wheeler, W.M. 1922a: 705; Emery, 1925b: 134; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMEPOMIS*)

Myrmepomis Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Formica sericeiventris*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Formica fulvopilosa*, unjustified subsequent designation by Forel, 1914a: 265; repeated in Arnold, 1922: 614.]

Myrmepomis as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 265; Forel, 1917: 251; Emery, 1920a: 245; Arnold, 1922: 614; Wheeler, W.M. 1922a: 705; Emery, 1925b: 170; all subsequent authors.

Junior synonym of *CAMPONOTUS* (*MYRMEPOMIS*)

Myrmolophus Emery, 1920a: 237 [as subgenus of *Camponotus*]. Type-species: *Formica sericeiventris*, by original designation.

Taxonomic history

Myrmolophus as subgenus of *Camponotus*: Emery, 1920a: 237.

Myrmolophus as junior synonym of *Myrmepomis*: Wheeler, W.M. 1921a: 17; Wheeler, W.M. 1922a: 705; Emery, 1925b: 170.

Subgenus *CAMPONOTUS* (*MYRMOGONIA*)

Myrmogonia Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Camponotus laminatus*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

Myrmogonia as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 261; Forel, 1917: 250; Emery, 1920a: 240; Wheeler, W.M. 1922a: 706; Emery, 1925b: 143; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMEURYNOTA*)

Myrmeurynota Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Camponotus eurynotus*, by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Camponotus gilviventris*, unjustified subsequent designation by Forel, 1914a: 266.]

Myrmeurynota as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 266; Forel, 1917: 251; Emery, 1920a: 251; Wheeler, W.M. 1922a: 710; Emery, 1925b: 167; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOPSAMMA*)

Myrmopsamma Forel, 1914a: 261 [as subgenus of *Camponotus*]. Type-species: *Camponotus mystaceus*, by original designation.

Taxonomic history

Myrmopsamma as subgenus of *Camponotus*: Forel, 1914a: 261; Forel, 1917: 250; Emery, 1920a: 246; Arnold, 1922: 612; Wheeler, W.M. 1922a: 708; Emery, 1925b: 70; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOMALIS*)

Myrmomalis Forel, 1914a: 263 [as subgenus of *Camponotus*]. Type-species: *Camponotus depressus*, by original designation.

Taxonomic history

Myrmomalis as subgenus of *Camponotus*: Forel, 1914a: 263; Forel, 1917: 251; Emery, 1920a: 251; Wheeler, W.M. 1922a: 710; Emery, 1925b: 169; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOPLATYS*)

Myrmoplatys Forel, 1916: 460 [as subgenus of *Camponotus*]. Type-species: *Camponotus korthalsiae*, by original designation.

Taxonomic history

Myrmoplatys as genus: Wheeler, W.M. 1936e: 219 (in text); Donisthorpe, 1943c: 670.

Myrmoplatys as subgenus of *Camponotus*: Forel, 1916: 460; Forel, 1917: 251; Emery, 1920a: 238; Wheeler, W.M. 1922a: 705; Emery, 1925b: 135; Bolton, 1994: 50.

Subgenus CAMPONOTUS (MYRMAPHAENUS)

Myrmaphaenus Emery, 1920a: 237 [as subgenus of *Camponotus*]. Type-species: *Camponotus leydigi*, by original designation.

Taxonomic history

Myrmaphaenus as subgenus of *Camponotus*: Emery, 1920a: 237; Wheeler, W.M. 1922a: 705; Emery, 1925b: 152; all subsequent authors.

Junior synonyms of CAMPONOTUS (MYRMAPHAENUS)

Paracolobopsis Emery, 1920a: 249 [as subgenus of *Camponotus*]. Type-species: *Camponotus salvini*, by original designation.

Taxonomic history

Paracolobopsis as subgenus of *Camponotus*: Emery, 1920a: 249; Wheeler, W.M. 1922a: 709.

Paracolobopsis as junior synonym of *Myrmaphaenus*: Emery, 1925b: 152; Kempf, 1972a: 44.

Neomyrmamblys Wheeler, W.M. 1921a: 19 [as subgenus of *Camponotus*]. Type-species: *Camponotus fastigatus*, by subsequent designation of Santschi, 1921c: 311.

Taxonomic history

Neomyrmamblys as subgenus of *Camponotus*: Wheeler, W.M. 1921a: 19; Wheeler, W.M. 1922a: 708.

Neomyrmamblys as junior synonym of *Myrmaphaenus*: Emery, 1925b: 152; Kempf, 1972a: 44.

Subgenus CAMPONOTUS (MYRMONESITES)

Myrmonesites Emery, 1920a: 242 [as subgenus of *Camponotus*]. Type-species: *Camponotus putatus*, by original designation.

Taxonomic history

Myrmonesites as subgenus of *Camponotus*: Emery, 1920a: 242; Wheeler, W.M. 1922a: 706; Emery, 1925b: 123.

[*Myrmensites* Donisthorpe, 1943c: 666, incorrect subsequent spelling.]

Subgenus CAMPONOTUS (MYRMOPYTIA)

Myrmopytia Emery, 1920a: 243 [as subgenus of *Camponotus*]. Type-species: *Camponotus imitator*, by original designation.

Taxonomic history

Myrmopytia as subgenus of *Camponotus*: Emery, 1920a: 243; Wheeler, W.M. 1922a: 707; Emery, 1925b: 114; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOTEMNUS)

Myrmotemnus Emery, 1920a: 246 [as subgenus of *Camponotus*]. Type-species: *Camponotus moeschi*, by original designation.

Taxonomic history

Myrmotemnus as junior synonym of *Myrmamblys*: Wheeler, W.M. 1921a: 19; Wheeler, W.M. 1922a: 708; Emery, 1925b: 137; Donisthorpe, 1943c: 671 (anachronism).

Myrmotemnus as subgenus of *Camponotus*: Emery, 1920a: 246; Santschi, 1926c: 601.

Subgenus CAMPONOTUS (PSEUDOCOLOBOPSIS)

Pseudocolobopsis Emery, 1920a: 249 [as subgenus of *Camponotus*]. Type-species: *Camponotus macrocephalus*, by original designation.

Taxonomic history

Pseudocolobopsis as subgenus of *Camponotus*: Emery, 1920a: 249; Wheeler, W.M. 1922a: 709; Emery, 1925b: 157; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOSTENUS)

Myrmostenus Emery, 1920a: 250 [as subgenus of *Camponotus*]. Type-species: *Camponotus mirabilis*, by original designation.

Taxonomic history

Myrmostenus as subgenus of *Camponotus*: Emery, 1920a: 250; Wheeler, W.M. 1922a: 709; Emery, 1925b: 161; all subsequent authors.

Subgenus CAMPONOTUS (HYPERCOLOBOPSIS)

Hypercolobopsis Emery, 1920a: 250 [as subgenus of *Camponotus*]. Type-species: *Colobopsis paradoxa*, by original designation.

Taxonomic history

Hypercolobopsis as subgenus of *Camponotus*: Emery, 1920a: 250; Wheeler, W.M. 1922a: 709; Emery, 1925b: 160; all subsequent authors.

Junior synonym of CAMPONOTUS (HYPERCOLOBOPSIS)

Neocolobopsis Borgmeier, 1928: 65 [as subgenus of *Camponotus*]. Type-species: *Camponotus (Neocolobopsis) scrobifer* (junior synonym of *Camponotus coriolanus*), by original designation.

Taxonomic history

Neocolobopsis as subgenus of *Camponotus* Borgmeier, 1928: 65.

Neocolobopsis as junior synonym of *Hypercolobopsis*: Kempf, 1968b: 411; Kempf, 1972a: 43.

Subgenus *CAMPONOTUS* (*MYRMOPIROMIS*)

Myrmopiromis Wheeler, W.M. 1921a: 17 [as subgenus of *Camponotus*]. Type-species: *Formica fulvopilosa*, by subsequent designation of Wheeler, W.M. 1922a: 707.

Taxonomic history

Myrmopiromis as subgenus of *Camponotus*: Wheeler, W.M. 1921a: 17; Wheeler, W.M. 1922a: 707; Emery, 1925b: 1127.

Subgenus *CAMPONOTUS* (*MYRMOSAULUS*)

Myrmosaulus Wheeler, W.M. 1921a: 18 [as subgenus of *Camponotus*]. Type-species: *Formica cinerascens*, by subsequent designation of Wheeler, W.M. 1922a: 705.

Taxonomic history

[Type-species not *Formica singularis*, unjustified subsequent designation by Emery, 1925b: 113, repeated in Donisthorpe, 1943c: 670. Note that Donisthorpe, 1932: 445, states that *C. cinerascens* belongs in subgenus *Myrmosericus*. If so then *Myrmosaulus* would fall as a junior synonym of *Myrmosericus*.]

Myrmosaulus as subgenus of *Camponotus*: Wheeler, W.M. 1921a: 18; Wheeler, W.M. 1922a: 705; Emery, 1925b: 112; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOCLADOECUS*)

Myrmocladoecus Wheeler, W.M. 1921a: 19 [as subgenus of *Camponotus*]. Type-species: *Camponotus latangulus*, by subsequent designation of Wheeler, W.M. 1922a: 709.

Taxonomic history

Myrmocladoecus as subgenus of *Camponotus*: Wheeler, W.M. 1921a: 19; Wheeler, W.M. 1922a: 709; Emery, 1925b: 166; all subsequent authors.

Subgenus *CAMPONOTUS* (*MANNIELLA*)

Manniella Wheeler, W.M. 1921a: 19 [as subgenus of *Camponotus*]. Type-species: *Camponotus sphaericus*, by original designation.

Taxonomic history

Manniella subgenus of *Camponotus*: Wheeler, W.M. 1921a: 19; Wheeler, W.M. 1922a: 710; Emery, 1925b: 159; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMISOLEPIS*)

Myrmisolepis Santschi, 1921c: 310 [as subgenus of *Camponotus*]. Type-species: *Cauponotus epinotalis*, by original designation.

Taxonomic history

Myrmisolepis as subgenus of *Camponotus*: Santschi, 1921c: 310; Emery, 1925b: 133; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOPELTA*)

Myrmopelta Santschi, 1921c: 310 [as subgenus of *Camponotus*]. Type-species: *Camponotus arminius*, by original designation.

Taxonomic history

Myrmopelta as junior synonym of *Myrmamblys*: Emery, 1925b: 137.

Myrmopelta as subgenus of *Camponotus*: Santschi, 1921c: 310; Wheeler, W.M. 1922a: 704 (footnote); Santschi, 1926a: 16; Santschi, 1926c: 603; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOPLATYPUS*)

Myrmoplatypus Santschi, 1921c: 311 [as subgenus of *Camponotus*]. Type-species: *Camponotus platytarsus*, by original designation.

Taxonomic history

Myrmoplatypus as subgenus of *Camponotus*: Santschi, 1921c: 311; Emery, 1925b: 169; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMEPINOTUS*)

Myrmepinotus Santschi, 1921c: 312 [as subgenus of *Camponotus*]. Type-species: *Camponotus echinoplodes*, by original designation.

Taxonomic history

Myrmepinotus as subgenus of *Camponotus*: Santschi, 1921c: 312; Emery, 1925b: 126; all subsequent authors.

Subgenus *CAMPONOTUS* (*MYRMOXYGENYS*)

Myrmoxigenys Emery, 1925b: 70 [as subgenus of *Camponotus*]. Type-species: *Camponotus caesar*, by monotypy.

Taxonomic history

Myrmoxigenys as subgenus of *Camponotus*: Emery, 1925b: 70; all subsequent authors.

Subgenus *CAMPONOTUS* (*KARAVAEVIA*)

Karavaevia Emery, 1925b: 115 [as subgenus of *Camponotus*]. Type-species: *Camponotus exsectus*, by

original designation.

Taxonomic history

Karavaievia as subgenus of *Camponotus*: Emery, 1925b: 115; all subsequent authors.

Subgenus CAMPONOTUS (MYRMODIRACHIS)

Myrmodirachis Emery, 1925b: 168 [as subgenus of *Camponotus*]. Type-species: *Camponotus heathi*, by original designation.

Taxonomic history

Myrmodirachis as subgenus of *Camponotus*: Emery, 1925b: 168; all subsequent authors.

Subgenus CAMPONOTUS (MYRMESPERA)

Myrmespera Santschi, 1926b: 247 [as subgenus of *Camponotus*]. Type-species: *Camponotus (Myrmespera) debellator*, by subsequent designation of Santschi, 1926c: 604.

Taxonomic history

Myrmespera as subgenus of *Camponotus*: Santschi, 1926b: 247; Santschi, 1926c: 603; all subsequent authors.

Subgenus CAMPONOTUS (PARAMYRMAMBLYS)

Paramyrmamblys Santschi, 1926c: 604 [as subgenus of *Camponotus*]. Type-species: *Camponotus (Myrmamblys) ostiarius*, by original designation.

Taxonomic history

Paramyrmamblys as subgenus of *Camponotus*: Santschi, 1926c: 604; all subsequent authors.

Subgenus CAMPONOTUS (MYRMACRHAPHE)

Myrmacrhaphe Santschi, 1926c: 607 [as subgenus of *Camponotus*]. Type-species: *Camponotus conradti*, by original designation.

Taxonomic history

Myrmacrhaphe as subgenus of *Camponotus*: Santschi, 1926c: 607; all subsequent authors.

Subgenus CAMPONOTUS (THLIPSEPINOTUS)

Thlipsepinotus Santschi, 1928d: 483 [as subgenus of *Camponotus*]. Type-species: *Camponotus claripes*, by original designation.

Taxonomic history

Thlipsepinotus as subgenus of *Camponotus*: Santschi, 1928d: 483; all subsequent authors.

Subgenus CAMPONOTUS (MYRMOPALPELLA)

Myrmopalpella Stårcke, 1934: 30 [as subgenus of *Camponotus*]. Type-species: *Camponotus megalonyx*, by monotypy.

Taxonomic history

Myrmopalpella as genus: Wheeler, W.M. 1936e: 219 (in text); Donisthorpe, 1943c: 669.

Myrmopalpella as subgenus of *Camponotus*: Bolton, 1995b: 37.

Genus references

Mayr, 1861: 35 (Europe species key); Roger, 1863b: 1, 9 (*Camponotus*, *Colobopsis* catalogues); Mayr, 1863: 397, 403 (*Camponotus*, *Colobopsis* catalogues); Mayr, 1865: 6, 7 (*Camponotus*, *Colobopsis* diagnosis); Mayr, 1867a: 67 (*Colobopsis* diagnosis); Mayr, 1868b: 27 (*Baltic Amber species key); Mayr, 1870a: 373 (Colombia + Panama (= New Grenada) species key); Mayr, 1870b: 941 (*Colobopsis* species key); André, 1874: 175 (Europe species key); Forel, 1874: 38 (Switzerland species key); Mayr, 1876: 58 (Australia species key); Mayr, 1878: 869 (all *Dendromyrmex* species key (as part of *Camponotus*)); Forel, 1878: 367, 368 (*Camponotus*, *Colobopsis* diagnoses); André, 1882a: 138 (Europe & Algeria species key); André, 1882b: 159 (Europe & Algeria *Colobopsis* species key); Cresson, 1887: 255 (U.S.A. *Camponotus*, *Colobopsis* catalogue); Provancher, 1887: 228 (Canada species key); Nasonov, 1889: 57 (Russia species key); Forel, 1891b: 71, 216 (Madagascar species key); Forel, 1892g: 223 (India & Sri Lanka species key); Dalla Torre, 1893: 219 (*Rhinomyrmex*, *Mayria*, *Camponotus* catalogues); Emery, 1893e: 667 (North America species key); Forel, 1893b: 435 (India & Sri Lanka *C. (Colobopsis)* species key); Emery, 1895e: 772 (synoptic classification); Emery, 1896a: 370, 378 (species groups, catalogue); Emery, 1898: 225 (additions to 1896a catalogue); Emery, 1903 (South America species key); Bingham, 1903: 343, 348 (India, Sri Lanka & Burma *Colobopsis*, *Camponotus* species keys); Ruzsky, 1905: 185 (Russian Empire species key); Emery, 1908a: 183 (Palaeartic *C. herculeanus* & *C. maculatus* groups species key); Bondroit, 1910: 486 (Belgium species key); Wheeler, W.M. 1910b: 297 (North America species key); Forel, 1914a: 259, 266 (subgenera diagnoses, species listed by subgenus); Stitz, 1914: 94 (Central Europe species key); Santschi, 1915b: 266 (*C. (Myrmotrema)* species key); Emery, 1916b: 227 (Italy species key); Wheeler, W.M. 1916g: 600 (U.S.A., Connecticut species key); Mann, 1916: 489 (*Dendromyrmex*, all species key); Bondroit, 1918 (France & Belgium species key); Emery, 1920a: 235 (subgenera, diagnoses); Emery, 1920b: 8 (Old World *C. maculatus* group, checklist & key); Wheeler, W.M. 1921a: 16 (subgenera, notes); Santschi, 1921c: 310 (subgenera, notes); Mann, 1921: 489, 499 (Fiji Is *C. (Myrmogonia)* & *C. (Colobopsis)* species keys); Wheeler, W.M. 1922a: 704 (subgenera synopsis); Wheeler, W.M. 1922a: 232, 948, 1039 (diagnosis, Afrotropical, Malagasy catalogues); Arnold, 1922: 610, 612, 619, 662, 673 (diagnosis, South Africa subgenera synopsis, South Africa *C. (Tanaemyrmex)*, *C. (Myrmophyma)*, *C. (Myrmopsamma)* species keys); Arnold, 1924: 683, 700,

709, 724, 735 (South Africa *C. (Myrmosericus)*, *C. (Myrmamblys)*, *C. (Orthonotomyrmex)*, *C. (Myrmotrema)*, *C. (Myrmepomis)* species keys); Emery, 1925a: 62 (Palaeartic *C. lateralis* group, key); Emery, 1925b: 59 (diagnosis, subgenera key, catalogue); Emery, 1925b: 69 (*C. (Dinomyrmex)* diagnosis, catalogue); Emery, 1925b: 70 (*C. (Myrmoxigenys)* & *C. (Myrmopsamma)* diagnoses, catalogues); Emery, 1925b: 71 (*C. (Camponotus)* diagnosis, catalogue); Emery, 1925b: 75 (*C. (Tanaemyrmex)* diagnosis, catalogue); Emery, 1925b: 104 (*C. (Myrmosericus)* diagnosis, catalogue); Emery, 1925b: 107 (*C. (Myrmothrix)* diagnosis, catalogue); Emery, 1925b: 109 (*C. (Myrmophyma)* diagnosis, catalogue); Emery, 1925b: 112 (*C. (Myrmosauls)* diagnosis, catalogue); Emery, 1925b: 114 (*C. (Myrmopytia)* diagnosis, catalogue); Emery, 1925b: 115 (*C. (Karavaievia)* diagnosis, catalogue); Emery, 1925b: 116 (*C. (Myrmentoma)* diagnosis, catalogue); Emery, 1925b: 121 (*C. (Mayria)* diagnosis, catalogue); Emery, 1925b: 123 (*C. (Myrmonesites)* diagnosis, catalogue); Emery, 1925b: 124 (*C. (Orthonotomyrmex)* diagnosis, catalogue); Emery, 1925b: 126 (*C. (Myrmepinotus)* diagnosis, catalogue); Emery, 1925b: 127 (*C. (Myrmopiromis)* diagnosis, catalogue); Emery, 1925b: 130 (*C. (Myrmotrema)* diagnosis, catalogue); Emery, 1925b: 133 (*C. (Myrmisolepis)* diagnosis, catalogue); Emery, 1925b: 134 (*C. (Myrmotarus)* diagnosis, catalogue); Emery, 1925b: 135 (*C. (Myrmoplatys)* diagnosis, catalogue); Emery, 1925b: 136 (*C. (Myrmamblys)* diagnosis, catalogue); Emery, 1925b: 142 (*C. (Rhinomyrmex)* diagnosis, catalogue); Emery, 1925b: 143 (*C. (Myrmogonia)* diagnosis, catalogue); Emery, 1925b: 144 (*C. (Colobopsis)* diagnosis, catalogue); Emery, 1925b: 151 (*C. (Myrmosphincta)* diagnosis, catalogue); Emery, 1925b: 152 (*C. (Myrmaphaenus)* diagnosis, catalogue); Emery, 1925b: 157 (*C. (Pseudocolobopsis)* diagnosis, catalogue); Emery, 1925b: 159 (*C. (Manniella)* diagnosis, catalogue); Emery, 1925b: 160 (*C. (Hypercolobopsis)* diagnosis, catalogue); Emery, 1925b: 161 (*C. (Myrmostenus)* & *C. (Myrmobrachys)* diagnoses, catalogues); Emery, 1925b: 166 (*C. (Myrmocladoecus)* diagnosis, catalogue); Emery, 1925b: 167 (*C. (Myrmeurynota)* diagnosis, catalogue); Emery, 1925b: 168 (*C. (Myrmodirachis)* diagnosis, catalogue); Emery, 1925b: 169 (*C. (Myrmomalis)* & *C. (Myrmoplatypus)* diagnoses, catalogues); Emery, 1925b: 170 (*C. (Myrmepomis)* diagnosis, catalogue); Emery, 1925b: 172 (*Dendromyrmex* diagnosis, catalogue); Santschi, 1926a: 16, 21 (*C. (Myrmopelta)* diagnosis, species key); Karavaiev, 1927a: 275 (Ukraine species key); Arnol'di, 1933b: 601 (Russia species key); Menozzi, 1933a: 81 (Israel species key); Menozzi, 1935b: 330 (Chile species key); Karavaiev, 1936: 175 (Ukraine species key); Finzi, 1936: 190 (Egypt species key); Menozzi, 1939: 316 (Himalaya & Tibet species key); Stitz, 1939: 236 (Germany species key); Kratochvíl, 1941: 109 (Central Europe species key); Novák & Sadil, 1941: 109 (Central Europe species key); Cole, 1942: 387 (U.S.A., Utah species key); Donisthorpe, 1942: 248 (*C. (Orthonotomyrmex)* notes); Holgersen, 1943: 174 (Norway species key); Holgersen, 1944: 199 (Norway species key); Buren, 1944: 293 (U.S.A., Iowa species key); Creighton, 1950a: 362 (North America species keys); Chapman & Capco, 1951: 220 (Asia checklist); Yasumatsu & Brown, 1951: 29 (*C. herculeanus* complex); Kusnezov, 1952d: 192 (Argentina species key); Yasumatsu & Brown, 1957: 45 (*C. herculeanus* complex); Pisarski, 1961: 175 (Poland species key); Gregg, 1963: 655 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 163 (U.S.A., North Dakota species key); Arnol'di, 1967: 1817 (former U.S.S.R. *C. (Camponotus)* species key); Bernard, 1967: 330 (diagnosis, Western Europe species key); Kempf, 1972a: 42, 95 (Neotropical catalogue); Hashmi, 1973: 1 (*C. (Myrmothrix)* all species revision, key); Alayo, 1974: 27 (Cuba species key); Snelling & Hunt, 1976: 117 (Chile species key); Tarbinsky, 1976: 144 (Kirgizstan species key); Boven, 1977: 130 (Belgium species key); Kutter, 1977b: 191 (Switzerland species key); Arnol'di & Dlussky, 1978: 551 (former European U.S.S.R. species key); Collingwood, 1978: 90 (Iberian Peninsula species key); Collingwood, 1979: 87 (Fennoscandia & Denmark species key); Smith, D.R. 1979: 1424 (North America catalogue); Allred, 1982: 445 (U.S.A., Utah species key); Gösswald, 1985: 264 (Germany species key); Collingwood, 1985: 275 (Saudi Arabia species key); Taylor & Brown, D.R. 1985: 109 (Australia catalogue); Dumpert, 1986: 571 (*C. (Karavaievia)* species key); Wheeler, G.C. & Wheeler, J. 1986b: 60 (U.S.A., Nevada species key); Agosti & Collingwood, 1987: 282 (Balkans species key); Taylor, 1987a: 10, 16 (Australia, New Caledonia, New Zealand checklists); Snelling, 1988: 57 (Nearctic *C. (Myrmentoma)* species key); Wang, C., Xiao & Wu, 1989: 222 (China species key); Dlussky, Soyunov & Zabelin, 1990: 125 (Turkmenistan species key); Kupyanskaya, 1990: 164 (Far Eastern Russia species key); Brandão, 1991: 332 (Neotropical catalogue); Morisita, Kubota, Onoyama, et al., 1991: 38 (Japan species key); Terayama, 1991: 165 (Japan *C. (Paramyrmamblys)* species); Atanasov & Dlussky, 1992: 207 (Bulgaria species key); Wang, C. & Wu, 1994: 28 (China species key); Radchenko, 1994a: 116 (South Siberia species key); Arakelian, 1994: 82 (Armenia species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 83, 169 (catalogue); Douwes, 1995: 92 (Sweden species key); Dumpert, Maschwitz, Weissflog et al., 1995: 104 (*C. (Karavaievia)* species key); Kupyanskaya, 1995: 352 (Far Eastern Russia species key); Wu, J. & Wang, 1995: 168 (China species key); Collingwood & Agosti, 1996: 370 (Saudi Arabia species key); Seifert, 1996: 170 (Central Europe species key); Radchenko, 1996b: 1195 (Asiatic Palaeartic species key); Cagniant, 1996b: 87 (Morocco species key); McArthur & Adams, 1996: 18 (Australia *C. nigriceps* group, key); MacKay, 1997: 194 (*C. (Myrmostenus)* species key); MacKay & MacKay, 1997: 319 and Snelling, 2000: 607 (*C. montivagus* complex, keys); Robertson & Zachariades, 1997: 2 (*C. fulvopilosus* group, key); Snelling & Torres, 1998: 9 (Puerto Rico & Virgin Is species key); Collingwood & Prince, 1998: 24 (Portugal species key); Terayama, 1999a: 27 (Japan species key); Shattuck, 1999: 91 (Australia synopsis); Zhou, 2001: 200 (China, Guangxi species key); McArthur & Shattuck, 2001: 27 (Australia *C. macrocephalus* group, key); Czechowski, Radchenko & Czechowska, 2002: 153 (Poland species key); Fernández, 2002: 58 (*C. (Dendromyrmex)* diagnosis, all species revision, key).

Genus *CHIMAEROMYRMA

**Chimaeromyrma* Dlussky, 1988: 58. Type-species: **Chimaeromyrma brachycephala*, by original designation.

Taxonomic history

**Chimaeromyrma incertae sedis* in Formicinae: Dlussky, 1988: 58.

**Chimaeromyrma* in Formicinae, Camponotini: Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50; Bolton, 1995b: 145.

Genus ECHINOPLA

Echinopla Smith, F. 1857: 79. Type-species: *Echinopla melanarctos*, by subsequent designation of Wheeler, W.M. 1911b: 162.

Taxonomic history

Echinopla in Formicidae, Cryptoceridae: Smith, F. 1857: 79.

Echinopla in Poneridae, Cryptoceridae: Smith, F. 1858b: 197.

Echinopla in Cryptoceridae: Smith, F. 1862a: 50.

Echinopla in Formicidae: Smith, F. 1862c: 415.

Echinopla in Formicinae: Mayr, 1862: 652 (in key) [Formicidae]; Mayr, 1865: 7 [Formicidae].

Echinopla in Camponotinae: Forel, 1878: 367 [Camponotidae]; Dalla Torre, 1893: 272.

Echinopla in Camponotinae, Polytrichidini: Ashmead, 1905b: 384.

Echinopla in Camponotinae, Camponotini: Forel, 1886b: 199; Forel, 1893a: 165; Emery, 1895e: 772; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 251.

Echinopla in Formicinae, Camponotini: Wheeler, W.M. 1922a: 701; Emery, 1925b: 210; all subsequent authors except the following.

Echinopla in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Junior synonym of ECHINOPLA

Mesoxena Smith, F. 1860b: 106. Type-species: *Mesoxena mistura*, by monotypy.

Taxonomic history

Mesoxena in Ponerinae: Smith, F. 1860b: 106 [Poneridae]; Smith, F. 1871: 324 [Poneridae]; Dalla Torre, 1893: 27.

Mesoxena in Formicinae: Mayr, 1865: 10 [Formicidae].

Mesoxena in Formicinae, Plagiolepidini: Ashmead, 1905b: 384.

Mesoxena in Formicinae, Camponotini: Forel, 1878: 369 [Camponotidae]; Emery, 1911a: 249; Emery, 1925b: 212; subsequent authors.

Mesoxena as junior synonym of *Echinopla*: Brown, 1973b: 182 [provisional]; Bolton, 1994: 50.

Genus references

Smith, F. 1858b: 197 (diagnosis); Smith, F. 1862c: 415 (catalogue); Roger, 1863b: 9, 21 (catalogue); Mayr, 1863: 408, 428 (catalogue); Mayr, 1865: 7, 10 (*Echinopla*, *Mesoxena* diagnoses); Mayr, 1867a: 65 (diagnosis); Forel, 1878: 368 (diagnosis); Emery, 1896a: 382 (catalogue); Emery, 1898: 231 (additions to 1896a catalogue); Emery, 1925b: 210 (diagnosis, catalogue); Emery, 1925b: 212 (*Mesoxena* diagnosis, catalogue); Chapman & Capco, 1951: 253, 256 (*Asia Echinopla*, *Mesoxena* checklists); Taylor & Brown, D.R. 1985: 122 (Australia catalogue); Taylor, 1987a: 24 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 183 (catalogue); Shattuck, 1999: 95 (Australia synopsis).

Genus FORELOPHILUS

Forelophilus Kutter, 1931: 193. Type-species: *Forelophilus overbecki*, by monotypy.

Taxonomic history

Forelophilus in Formicinae, Camponotini: Donisthorpe, 1943c: 646; all subsequent authors except below; Bolton, 1994: 50; Bolton, 1995b: 190.

Forelophilus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus OPISTHOPSIS

Opisthopsis Dalla Torre, 1893: 219.

Taxonomic history

[Replacement name for *Myrmecopsis* Smith, F. 1865: 68; junior homonym of *Myrmecopsis* Newman, 1850: cxxii (Lepidoptera).]

Opisthopsis in Camponotinae: Dalla Torre, 1893: 219.

Opisthopsis in Camponotinae, Camponotini: Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 250.

Opisthopsis in Formicinae, Camponotini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 54; all subsequent authors except the following.

Opisthopsis in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Homonym replaced by OPISTHOPSIS

Myrmecopsis Smith, F. 1865: 68 [as subgenus of *Formica*]. Type-species: *Formica (Myrmecopsis) respiciens*, by monotypy.

Taxonomic history

[Junior homonym of *Myrmecopsis* Newman, 1850: cxxii (Lepidoptera).]

Myrmecopsis in Camponotinae: Forel, 1878: 369 [Camponotidae].

Myrmecopsis in Camponotinae, Camponotini: Forel, 1893a: 165.

Myrmecopsis as genus: Mayr, 1876: 76; Wheeler, W.M. 1910d: 144 (anachronism).

Genus references

Forel, 1878: 369 (diagnosis); Dalla Torre, 1893: 219 (catalogue); Emery, 1896a: 378 (catalogue); Emery, 1925b: 54 (diagnosis, catalogue); Wheeler, W.M. 1918c: 345 (diagnosis, all species key); Chapman & Capco, 1951: 256 (Asia checklist); Taylor & Brown, D.R. 1985: 127 (Australia catalogue); Taylor, 1987a: 50 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 300 (catalogue); Shattuck, 1999: 103 (Australia synopsis).

Genus *OVERBECKIA*

Overbeckia Viehmeyer, 1916: 151. Type-species: *Overbeckia subclavata*, by monotypy.

Taxonomic history

Overbeckia in Camponotinae, Camponotini: Forel, 1917: 251.

Overbeckia in Formicinae, Camponotini: Wheeler, W.M. 1922a: 700; Emery, 1925b: 59; all subsequent authors.

Genus references

Emery, 1925b: 59 (diagnosis, catalogue); Bolton, 1994: 50 (synoptic classification); Bolton, 1995b: 301 (catalogue).

Genus *PHASMOMYRMEX*

Phasmomyrmex Stitz, 1910: 146. Type-species: *Phasmomyrmex sericeus* (junior synonym of *Phasmomyrmex buchneri*), by monotypy.

Taxonomic history

Phasmomyrmex in Dolichoderinae: Stitz, 1910: 146; Donisthorpe, 1943c: 683 (anachronism).

Phasmomyrmex in Formicinae, Camponotini: Emery, 1920a: 252; Wheeler, W.M. 1922a: 701; Emery, 1925b: 57; all subsequent authors except the following.

Phasmomyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Phasmomyrmex as subgenus of *Camponotus*: Forel, 1912f: 90; Forel, 1914a: 264; Forel, 1917: 251.

Phasmomyrmex as genus: Stitz, 1910: 146; Emery, 1920a: 252; Wheeler, W.M. 1922a: 701; Emery, 1925b: 57; all subsequent authors.

Subgenera of *PHASMOMYRMEX* include the nominal plus the following.

Subgenus *PHASMOMYRMEX (MYRMORHACHIS)*

Myrmorhachis Forel, 1912f: 92 [as subgenus of *Camponotus*]. Type-species: *Camponotus polyrhachioides* (unnecessary replacement name for *Polyrhachis paradoxa*), by subsequent designation of Wheeler, W.M. 1913a: 81.

Taxonomic history

[Type-species not *Camponotus latangulus*, unjustified subsequent designation by Forel, 1914a: 265.]

Myrmorhachis as subgenus of *Camponotus*: Forel, 1912f: 92; Forel, 1914a: 265; Forel, 1917: 251; Emery, 1920a: 251; Wheeler, W.M. 1922a: 707.

Myrmorhachis as subgenus of *Phasmomyrmex*: Emery, 1925b: 58; all subsequent authors.

Myrmorhachis as junior synonym of *Phasmomyrmex*: Brown, 1973b: 182 [provisional].

Subgenus *PHASMOMYRMEX (MYRMACANTHA)*

Myrmacantha Emery, 1920a: 246 [as subgenus of *Camponotus*]. Type-species: *Camponotus aberrans*, by original designation.

Taxonomic history

Myrmacantha as subgenus of *Camponotus*: Emery, 1920a: 246.

Myrmacantha as junior synonym of *Myrmorhachis*: Wheeler, W.M. 1921a: 18; Wheeler, W.M. 1922a: 707.

Myrmacantha as subgenus of *Phasmomyrmex*: Emery, 1925b: 58; all subsequent authors.

Genus references

Wheeler, W.M. 1922a: 256, 992 (diagnosis, catalogue); Emery, 1925b: 57 (diagnosis, catalogue); Emery, 1925b: 58 (*P. (Myrmorhachis)* & *P. (Myrmacantha)* diagnoses, catalogues); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 316 (catalogue).

Genus *POLYRHACHIS*

Polyrhachis Smith, F. 1857: 58. Type-species: *Formica bihamata*, by original designation.

Taxonomic history

[*Polyrhachis* Shuckard, in Swainson & Shuckard, 1840: 172, *nomen nudum*.]

Polyrhachis in Formicidae: Smith, F. 1858b: 58.

Polyrhachis in Formicinae: Mayr, 1862: 652 [Formicidae]; Mayr, 1865: 6 [Formicidae].

Polyrhachis in Camponotinae: Forel, 1878: 367 [Camponotidae]; Dalla Torre, 1893: 257.

Polyrhachis in Camponotinae, Polyrhachidini: Ashmead, 1905b: 384.

Polyrhachis in Camponotinae, Camponotini: Forel, 1886b: 194; Forel, 1893a: 165; Emery, 1895e: 772; Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 251; Arnold, 1924: 741.

Polyrhachis in Formicinae, Camponotini: Wheeler, W.M. 1922a: 701; Emery, 1925b: 175; all subsequent authors except the following.

Polyrhachis in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Polyrhachis as subgenus of *Myrma*: Wheeler, W.M. 1911a: 860; Wheeler, W.M. 1911b: 170. [*Myrma* as subgenus of *Polyrhachis*: Forel, 1915a: 106; Forel, 1917: 251; Wheeler, W.M. 1922a: 702, 993; Emery, 1925b: 198; all subsequent authors (see note under *Myrma*).]

[*Polyrhachis* Arnold, 1924: 741, incorrect subsequent spelling.]

Subgenera of **POLYRHACHIS** include the nominal plus the following. All the subgenera were given as provisional junior synonyms of *Polyrhachis* by Brown, 1973b: 178 - 184. Brown's list was repeated in Hölldobler & Wilson, 1990: 19 but with all subgenera listed as junior synonyms; subgeneric status was reinstated in Bolton, 1994: 50. These consecutive entries are not repeated individually below.

Subgenus **POLYRHACHIS (MYRMA)**

Myrma Billberg, 1820: 104. Type-species: *Formica militaris*, by subsequent designation of Wheeler, W.M. 1911a: 859.

Taxonomic history

[Although *Myrma* antedates *Polyrhachis*, the former has been treated as a subgenus of the latter since Forel, 1917: 251 (see Hung, 1967: 396 for history). Dorow, Kohout & Taylor, 1997: 236 proposed the precedence of *Polyrhachis* over *Myrma* and that precedence was established by the ICZN (Opinion 1919) 1999: 92.]

Polyrhachis as subgenus of *Myrma*: Wheeler, W.M. 1911a: 860; Wheeler, W.M. 1911b: 170.

Myrma as subgenus of *Polyrhachis*: Forel, 1915a: 106; Forel, 1917: 251; Wheeler, W.M. 1922a: 702, 993; Emery, 1925b: 198; all subsequent authors, see note above.

Junior synonyms of **POLYRHACHIS (MYRMA)**

Anoplomyrma Chapman, 1963: 258 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Anoplomyrma) parabiota*, by monotypy.

Taxonomic history

Anoplomyrma as junior synonym of *Myrma*: Dorow, 1995: 30

Hoplomyrmus Gerstäcker, 1859: 262. Type-species: *Hoplomyrmus schistaceus*, by monotypy.

Taxonomic history

[*Hoplomyrmus* also described as new by Gerstäcker, 1862: 508.]

Hoplomyrmus as junior synonym of *Polyrhachis*: Roger, 1861b: 174; Roger, 1863b: 6; Mayr, 1863: 446; Dalla Torre, 1893: 257.

Hoplomyrmus as junior synonym of *Myrma*: Wheeler, W.M. 1911a: 860; Wheeler, W.M. 1922a: 993; Emery, 1925b: 198; Bolton, 1973b: 288.

Pseudocyrtomyrma Emery, 1921a: 18 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis revoili*, by original designation.

Taxonomic history

Pseudocyrtomyrma as subgenus of *Polyrhachis*: Emery, 1921a: 18; Emery, 1925b: 206.

Pseudocyrtomyrma as junior synonym of *Myrma*: Bolton, 1973b: 288.

Subgenus **POLYRHACHIS (HEMIOPTICA)**

Hemioptica Roger, 1862a: 238. Type-species: *Hemioptica scissa*, by monotypy.

Taxonomic history

Hemioptica in Formicinae: Mayr, 1862: 769 [Formicidae]; Mayr, 1865: 6 [Formicidae].

Hemioptica in Camponotinae: Dalla Torre, 1893: 271.

Hemioptica in Camponotinae, Camponotini: Emery, 1895e: 772; Wheeler, W.M. 1910d: 144; all subsequent authors except the following.

Hemioptica in Camponotinae, Polyrhachidini: Ashmead, 1905b: 384.

Hemioptica as junior synonym of *Polyrhachis*: Forel, 1878: 368.

Hemioptica as subgenus of *Myrma*: Wheeler, W.M. 1911a: 860; Wheeler, W.M. 1911b: 164.

Hemioptica as genus: Roger, 1862a: 238; Mayr, 1862: 769; Mayr, 1865: 6; Dalla Torre, 1893: 271; Emery, 1895e: 772; Ashmead, 1905b: 384; Wheeler, W.M. 1910d: 144; Emery, 1925b: 209; Donisthorpe, 1943c: 649; Chapman & Capco, 1951: 255.

Hemioptica as subgenus of *Polyrhachis*: Mayr, 1872: 138; Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 701; Dorow & Kohout, 1995: 95; Bolton, 1995b: 31; Dorow, 1995: 29.

Subgenus **POLYRHACHIS (CAMPOMYRMA)**

Campomyrma Wheeler, W.M. 1911c: 860 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis clypeata* (junior synonym of *Polyrhachis exercita*), by original designation.

Taxonomic history

Campomyrma as subgenus of *Polyrhachis*: Forel, 1917: 251; Wheeler, W.M. 1922a: 702; Emery, 1925b: 178; all subsequent authors.

Subgenus **POLYRHACHIS (HAGIOMYRMA)**

Hagiomyrma Wheeler, W.M. 1911a: 860 [as subgenus of *Polyrhachis*]. Type-species: *Formica ammon*, by original designation.

Taxonomic history

Hagiomyrma as subgenus of *Polyrhachis*: Wheeler, W.M. 1911a: 860; Forel, 1917: 251; Wheeler, W.M. 1922a: 702; Emery, 1925b: 184; all subsequent authors.

Subgenus *POLYRHACHIS* (*MYRMOTHRINAX*)

Myrmothrinax Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis thrinax*, by original designation.

Taxonomic history

Myrmothrinax as subgenus of *Polyrhachis*: Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 704; Emery, 1925b: 178; all subsequent authors.

Junior synonym of *POLYRHACHIS* (*MYRMOTHRINAX*)

Evelyna Donisthorpe, 1937b: 273 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Evelyna) cheesmanae*, by original designation.

Taxonomic history

Evelyna as junior synonym of *Myrmothrinax*: Hung, 1967: 402.

Subgenus *POLYRHACHIS* (*CYRTOMYRMA*)

Cyrtomyrma Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Formica rastellata*, by original designation.

Taxonomic history

Cyrtomyrma as subgenus of *Polyrhachis*: Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 701; Emery, 1925b: 207; all subsequent authors.

Subgenus *POLYRHACHIS* (*MYRMHOPLA*)

Myrmhopla Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Formica armata*, by original designation.

Taxonomic history

Myrmhopla as subgenus of *Polyrhachis*: Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 701; Emery, 1925b: 190; all subsequent authors.

Junior synonyms of *POLYRHACHIS* (*MYRMHOPLA*)

Cephalomyrma Karavaiev, 1935: 115 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Cephalomyrma) stylifera*, by monotypy.

Taxonomic history

Cephalomyrma as junior synonym of *Myrmhopla*: Hung, 1967: 402.

Florencea Donisthorpe, 1937a: 624 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Florencea) kirkae* (junior synonym of *Polyrhachis nigriceps*), by original designation.

Taxonomic history

Florencea as junior synonym of *Myrmhopla*: Hung, 1967: 402.

Subgenus *POLYRHACHIS* (*CHARIOMYRMA*)

Chariomyrma Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis guerini*, by original designation.

Taxonomic history

Chariomyrma as subgenus of *Polyrhachis*: Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 702; Emery, 1925b: 185; all subsequent authors.

Subgenus *POLYRHACHIS* (*HEDOMYRMA*)

Hedomyrma Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis ornata*, by original designation.

Taxonomic history

Hedomyrma as subgenus of *Polyrhachis*: Forel, 1915a: 107; Forel, 1917: 251; Wheeler, W.M. 1922a: 702; Emery, 1925b: 189; all subsequent authors.

Junior synonyms of *POLYRHACHIS* (*HEDOMYRMA*)

Dolichorhachis Mann, 1919: 386 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Dolichorhachis) malaensis*, by monotypy.

Taxonomic history

Dolichorhachis as subgenus of *Polyrhachis*: Mann, 1919: 386; Wheeler, W.M. 1922a: 702; Emery, 1925b: 188.

Dolichorhachis as junior synonym of *Hedomyrma*: Dorow, 1995: 26.

Morleyidris Donisthorpe, 1944b: 64 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis (Morleyidris) trina*, by original designation.

Taxonomic history

Morleyidris as junior synonym of *Hedomyrma*: Hung, 1967: 402.

Subgenus *POLYRHACHIS* (*MYRMATOPA*)

Myrmatopa Forel, 1915a: 107 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis schang*, by original designation.

Taxonomic history

Myrmatopa as subgenus of *Polyrhachis*: Forel, 1917: 251; Wheeler, W.M. 1922a: 702; Emery, 1925b: 180; all subsequent authors.

Junior synonym of *POLYRHACHIS* (*MYRMATOPA*)

Ireneia Donisthorpe, 1938b: 502 [as subgenus of *Dolichoderus*]. Type-species: *Dolichoderus (Ireneia)*

omyrmex, by original designation.

Taxonomic history

Ireneae in Dolichoderinae, Dolichoderini: Donisthorpe, 1938b: 502; Donisthorpe, 1943c: 653; Chapman & Capco, 1951: 186.

Ireneae as subgenus of *Dolichoderus*: Donisthorpe, 1938b: 502.

Ireneae as genus: Donisthorpe, 1941d: 59; Chapman & Capco, 1951: 186.

Ireneae as junior synonym of *Polyrhachis* (*Myrmatopa*): Bolton, 1994: 50; Dorow, 1995: 42.

Subgenus POLYRHACHIS (AULACOMYRMA)

Aulacomyrma Emery, 1921a: 17 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis porcata*, by original designation.

Taxonomic history

Aulacomyrma as subgenus of *Polyrhachis*: Emery, 1921a: 17; Emery, 1925b: 197; all subsequent authors.

Junior synonym of *POLYRHACHIS* (*AULACOMYRMA*)

Johnia Karavaiev, 1927b: 43 [as subgenus of *Polyrhachis*]. Type-species: *Polyrhachis* (*Johnia*) *schizospina*, by monotypy.

Taxonomic history

Johnia as junior synonym of *Aulacomyrma*: Hung, 1967: 402.

Genus references

Smith, F. 1858b: 58 (diagnosis); Roger, 1863b: 6 (catalogue); Mayr, 1863: 422, 443 (*Hemioptica*, *Polyrhachis* catalogues); Mayr, 1865: 6 (*Polyrhachis*, *Hemioptica* diagnoses); Mayr, 1867a: 40, 41 (diagnosis, species groups (as "turmae")); Mayr, 1876: 68 (Australia species key); Forel, 1878: 368 (diagnosis); Mayr, 1879: 648 (species groups); André, 1887: 286 (Afrotropical species key); Dalla Torre, 1893: 257, 271 (*Polyrhachis*, *Hemioptica* catalogues); Forel, 1893c: 17 (India & Sri Lanka species key); Emery, 1896a: 378 (catalogue); Emery, 1897c: 579, 582 (*P. relucens* & *P. guerini* groups, keys); Emery, 1898: 227 (additions to 1896a catalogue); Bingham, 1903: 383 (India, Sri Lanka & Burma species key); Santschi, 1910: 284 (*P. rastellata* group, key); Viehmeyer, 1914b: 50, 54 (*P. rastellata* & *P. hostilis* groups, keys); Wheeler, W.M. 1922a: 256, 701, 992 (diagnosis, subgenera key, Afrotropical catalogue); Arnold, 1924: 741 (diagnosis, South Africa species key); Emery, 1925b: 175 (diagnosis, subgenera key, catalogue); Emery, 1925b: 178 (*P. (Campomyrma)* diagnosis, catalogue); Emery, 1925b: 180 (*P. (Myrmatopa)* diagnosis, catalogue); Emery, 1925b: 181 (*P. (Polyrhachis)* diagnosis, catalogue); Emery, 1925b: 182 (*P. (Myrmotherinx)* diagnosis, catalogue); Emery, 1925b: 184 (*P. (Hagiomyrma)* diagnosis, catalogue); Emery, 1925b: 185 (*P. (Chariomyrma)* diagnosis, catalogue); Emery, 1925b: 188 (*P. (Dolichorhachis)* diagnosis, catalogue); Emery, 1925b: 189 (*P. (Hedomyrma)* diagnosis, catalogue); Emery, 1925b: 190 (*P. (Myrmhopla)* diagnosis, catalogue); Emery, 1925b: 197 (*P. (Aulacomyrma)* diagnosis, catalogue); Emery, 1925b: 198 (*P. (Myrma)* diagnosis, catalogue); Emery, 1925b: 206 (*P. (Pseudocyrtomyrma)* diagnosis, catalogue); Emery, 1925b: 207 (*P. (Cyrtomyrma)* diagnosis, catalogue); Emery, 1925b: 209 (*Hemioptica* diagnosis, catalogue); Donisthorpe, 1938a: 246 (*P. (Cyrtomyrma)* review); Santschi, 1939b: 13 (*P. (Pseudocyrtomyrma)* species key); Chapman & Capco, 1951: 186, 255, 256 (Asia *Ireneae*, *Hemioptica*, *Polyrhachis* checklists); Hung, 1962: 24 (Taiwan species key); Hung, 1967: 395 (review of subgenera); Hung, 1970: 5 (*P. (Polyrhachis)* species revision, key); Bolton, 1973b: 289 (Afrotropical species revision, key); Bolton, 1975c: 1 (*P. sexspinosa* group, key); Taylor & Brown, D.R. 1985: 131 (Australia catalogue); Taylor, 1987a: 59 (Australia, New Caledonia checklist); Kohout, 1987: 169 (Philippines *P. sexspinosa* group, key); Kohout, 1989: 515 (Australia *P. relucens* group, key); Kohout, 1990: 500 (*P. viehmeyeri* group, key); Kohout & Taylor, 1990: 509 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1991: 45 (Japan species key); Wang C. & Wu, 1991: 596 (China species key); Dorow & Kohout, 1995: 96 (*P. (Hemioptica)* species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 342 (catalogue); Dorow, 1995: 9 (subgenera revision, subgenera key, catalogue); Dorow, 1995: 10-11 (*P. (Myrmhopla)* species groups, key); Dorow, 1995: 12 (*P. arachne*-, *P. cryptoceroideis*-, *P. flavoflagellata*-, *P. furcata*- and *P. hector* species groups, keys); Dorow, 1995: 12 (*P. (Aulacomyrma)* synopsis); Dorow, 1995: 13 (*P. (Campomyrma)* synopsis); Dorow, 1995: 16 (*P. (Chariomyrma)* synopsis); Dorow, 1995: 21 (*P. (Cyrtomyrma)* synopsis); Dorow, 1995: 24 (*P. (Hagiomyrma)* synopsis); Dorow, 1995: 26 (*P. (Hedomyrma)* synopsis); Dorow, 1995: 28 (*P. (Hemioptica)* synopsis); Dorow, 1995: 30 (*P. (Myrma)* synopsis); Dorow, 1995: 42 (*P. (Myrmatopa)* synopsis); Dorow, 1995: 45 (*P. (Myrmhopla)* synopsis); Dorow, 1995: 61 (*P. (Myrmotherinx)* synopsis); Dorow, 1995: 63 (*P. (Polyrhachis)* synopsis); Wu, J. & Wang, 1995: 159 (China species key); Shattuck, 1999: 107 (Australia synopsis); Zhou, 2001: 190 (China, Guangxi species key); Xu, 2002b: 523 (China *P. (Cyrtomyrma)* species key).

Genus *PSEUDOCAMPONOTUS

**Pseudocamponotus* Carpenter, 1930: 22. Type-species: **Pseudocamponotus elkoanus*, by original designation.

Taxonomic history

**Pseudocamponotus* in Formicinae, Camponotini: Dlussky & Fedoseeva, 1988: 77; Carpenter, 1930: 22; Bolton, 1994: 50; Bolton, 1995b: 369.

Tribe NOTOSTIGMATINI trib. n.

Genus: *Notostigma* [type-genus]. [*Taxonomy*, p. 27.]

Genus of Notostigmatini

Genus *NOTOSTIGMA*

Notostigma Emery, 1920a: 252. Type-species: *Camponotus carazzii*, by original designation.

Taxonomic history

Notostigma in Formicinae, Camponotini: Wheeler, W.M. 1922a: 703; Emery, 1925b: 56; all subsequent authors.

Genus references

Emery, 1925b: 56 (diagnosis, catalogue); Taylor & Brown, D.R. 1985: 127 (Australia catalogue); Taylor, 1987a: 48 (Australia checklist); Wheeler, G.C. & Wheeler, J. 1988: 355 (larva); Taylor, 1992: 62 (taxonomy, notes); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 293 (catalogue); Shattuck, 1999: 101 (Australia synopsis).

Tribe FORMICINI

Formicariae Latreille, 1809: 124. Type-genus: *Formica*.

Taxonomic history

Formicini as group name: Latreille, 1809: 124 [Formicariae].

Formicini as tribe of Camponotidae: Forel, 1891b: 79 [Formicii].

Formicini as tribe of Camponotinae: Forel, 1893a: 165 [Formicii]; Emery, 1895e: 772 [Formicii]; Forel, 1899: 125 [Formicii]; Ruzsky, 1902b: 8 [Formicii]; Ruzsky, 1905: 110 [Formicii]; Wheeler, W.M. 1910d: 143 [Formicii]; Wheeler, W.M. 1915e: 120; Forel, 1917: 249.

Formicini as tribe of Formicinae: Ashmead, 1905b: 384; Bondroit, 1918: 36; Wheeler, W.M. 1922a: 693; Emery, 1925b: 240; all subsequent authors. [*Taxonomy*, p. 27.]

Genera (extant): *Alloformica*, *Bajcaridris*, *Cataglyphis*, *Formica*, *Polyergus*, *Proformica*, *Rossomyrmex*.

Genera (extinct): **Glaphyromyrmex*, **Protoformica*.

Tribe references

Forel, 1893a: 165 (synoptic classification); Emery, 1895e: 772 (synoptic classification); Forel, 1917: 249 (synoptic classification); Wheeler, W.M. 1922a: 698 (genera key); Emery, 1925b: 240 (diagnosis, genera key, catalogue); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 62 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 18 (synoptic classification); Agosti, 1990b: 295 (review of tribe, diagnosis); Agosti, 1991: 295 (*Formica* genus group diagnosis); Agosti, 1994: 95 (diagnosis, revision of genera, phylogeny, key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1039 (census); Bolton, 1995b: 12 (catalogue).

Genera of Formicini

Genus *ALLOFORMICA*

Alloformica Dlussky, 1969: 219 [as subgenus of *Proformica*]. Type-species: *Formica aberrans*, by original designation.

Taxonomic history

Alloformica in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Alloformica in Formicinae, Formicini: Dlussky & Fedoseeva, 1988: 77; Agosti, 1994: 93; Bolton, 1994: 50.

Alloformica as genus: Dlussky & Fedoseeva, 1988: 77; all subsequent authors.

Genus references

Dlussky, Soyunov & Zabelin, 1990: 142 (Turkmenistan species key); Agosti, 1994: 99 (diagnosis, review of genus); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 61 (catalogue).

Genus *BAJCARIDRIS*

Bajcaridris Agosti, 1994: 99. Type-species: *Formica (Proformica) theryi*, by original designation.

Taxonomic history

[*Bajcaridris* Agosti, 1991: 295, *nomen nudum*.]

Bajcaridris in Formicinae, Formicini: Agosti, 1994: 93; Bolton, 1994: 50; Bolton, 1995b: 80.

Genus *CATAGLYPHIS*

Cataglyphis Foerster, 1850b: 493. Type-species: *Cataglyphis fairmairei* (junior synonym of *Formica bicolor*), by monotypy.

Taxonomic history

Cataglyphis in Formicinae: Mayr, 1861: 44 [Formicidae]; Mayr, 1862: 653 (in key) [Formicidae]; Mayr, 1865: 8 [Formicidae].

Cataglyphis in Camponotinae, Formicini: Wheeler, W.M. 1910d: 144; Forel, 1912f: 89; Forel, 1917: 250.

Cataglyphis in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Cataglyphis in Formicinae, Formicini: Bondroit, 1918: 38; Wheeler, W.M. 1922a: 699; Emery, 1925b: 261; Agosti, 1994: 93; Bolton, 1994: 50.

Cataglyphis as junior synonym of *Myrmecocystus*: Forel, 1878: 372; Emery & Forel, 1879: 449; André, 1882b: 165; Forel, 1886b: 201; Mayr, 1886c: 424; Dalla Torre, 1893: 216; Bingham, 1903: 312; Ruzsky, 1905: 426; Emery, 1906d: 47; Emery, 1908f: 213; Karavaiev, 1924: 301.

Cataglyphis as subgenus of *Myrmecocystus*: Wheeler, W.M. 1910d: 144.

Cataglyphis as genus: Foerster, 1850b: 493; Roger, 1863b: 12; Mayr, 1863: 402; Wheeler, W.M. 1913a: 78; Emery, 1925b: 261; all subsequent authors.

Junior synonyms of *CATAGLYPHIS*

Monocombus Mayr, 1855: 381. Type-species: *Formica viatica*, by monotypy.

Taxonomic history

Monocombus in Formicinae: Mayr, 1855: 381 [Formicidae].

Monocombus as junior synonym of *Myrmecocystus*: Forel, 1878: 372; Emery & Forel, 1879: 449; André, 1882b: 165; Mayr, 1886c: 424; Dalla Torre, 1893: 216.

Monocombus as subgenus of *Cataglyphis*: Santschi, 1929a: 29.

Monocombus as junior synonym of *Cataglyphis*: Mayr, 1861: 44; Roger, 1863b: 12; Mayr, 1863: 402; Wheeler, W.M. 1922a: 944; Emery, 1925b: 261; Agosti, 1990a: 1462; Agosti, 1994: 103.

Paraformica Forel, 1915a: 95 (footnote) [as subgenus of *Formica*]. Type-species: *Formica (Paraformica) emmae*, by monotypy.

Taxonomic history

Paraformica in Camponotinae, Formicini: Forel, 1917: 250.

Paraformica in Formicinae, Formicini: Wheeler, W.M. 1922a: 699; Emery, 1925b: 260.

Paraformica as subgenus of *Formica*: Forel, 1915a: 95; Forel, 1917: 250; Wheeler, W.M. 1922a: 699.

Paraformica as genus: Emery, 1925b: 260; Donisthorpe, 1943c: 680.

Paraformica as subgenus of *Proformica*: Kuznetsov-Ugamsky, 1928: 7.

Paraformica as subgenus of *Cataglyphis*: Santschi, 1925e: 353; Santschi, 1929a: 30.

Paraformica as junior synonym of *Cataglyphis*: Brown, 1973b: 183 [provisional]; Agosti, 1990a: 1462; Agosti, 1994: 103.

Machaeromyrma Forel, 1916: 441 [as subgenus of *Cataglyphis*]. Type-species: *Formica bombycina*, by original designation.

Taxonomic history

Machaeromyrma as subgenus of *Cataglyphis*: Forel, 1916: 441; Forel, 1917: 250; Wheeler, W.M. 1922a: 699; Emery, 1925b: 266; Santschi, 1929a: 30; subsequent authors to the following.

Machaeromyrma as junior synonym of *Cataglyphis*: Baroni Urbani, 1969b: 218; Agosti, 1994: 103.

Eomonocombus Arnol'di, 1968: 1815 [as subgenus of *Cataglyphis*]. Type-species: *Myrmecocystus cinnamomeus*, by original designation.

Taxonomic history

Eomonocombus as junior synonym of *Cataglyphis*: Brown, 1973b: 180 [provisional]; Agosti, 1990a: 1462; Agosti, 1994: 103.

Genus references

Mayr, 1861: 44 (Europe species key); Roger, 1863b: 12 (catalogue); Mayr, 1863: 402 (catalogue); Mayr, 1865: 8 (diagnosis); André, 1874: 181 (Europe species key); Forel, 1878: 372 (diagnosis); André, 1882b: 166 (Europe & Algeria species key); Nasonov, 1889: 60 (Russia species key); Bingham, 1903: 312 (diagnosis); Ruzsky, 1905: 426 (Russian Empire species key); Emery, 1906d: 60 (Palearctic species (as *Myrmecocystus*), key); Wheeler, W.M. 1922a: 699 (subgenera key); Wheeler, W.M. 1922a: 945 (Afrotropical catalogue); Emery, 1925b: 260 (*Paraformica* diagnosis, catalogue); Emery, 1925b: 261 (diagnosis, catalogue); Emery, 1925b: 266 (*C. (Machaeromyrma)* diagnosis, catalogue); Santschi, 1929a: 56 (all species key); Menozzi, 1933a: 86 (Israel species key); Kratochvíl, 1941: 108 (Central Europe species key); Chapman & Capco, 1951: 197, 203 (Asia checklist); Bernard, 1967: 280 (diagnosis); Tarbinsky, 1976: 197 (Kirgizstan species key); Arnol'di & Dlussky, 1978: 554 (former European U.S.S.R. species key); Collingwood, 1978: 92 (Iberian Peninsula species key); Agosti & Collingwood, 1987: 284 (Balkans species key); Collingwood, 1985: 284 (Saudi Arabia species key); Agosti, 1990a: 1457 (review of genus, diagnosis, species groups key, catalogue); Dlussky, Soyunov & Zabelin, 1990: 146 (Turkmenistan species key); Atanasov & Dlussky, 1992: 292 (Bulgaria species key); Agosti, 1994: 103 (diagnosis, review of genus); Arakelian, 1994: 103 (Armenia species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 135 (catalogue); Collingwood & Agosti, 1996: 375 (Saudi Arabia species key); Seifert, 1996: 179 (Central Europe species key); Collingwood & Prince, 1998: 28 (Portugal species key); Radchenko, 1998: 502 (Asia species key); Radchenko, 2001: 885 (phylogeny).

Genus *FORMICA*

Formica Linnaeus, 1758: 579. Type-species: *Formica rufa*, by subsequent designation of Curtis, 1839: 752.

Taxonomic history

Formica in Formicites: Lepeletier de Saint-Fargeau, 1835: 199.

Formica in Formicidae: Smith, F. 1858b: 1.

Formica in Formicinae: Mayr, 1861: 45 [Formicidae]; Mayr, 1862: 653 (in key) [Formicidae]; Mayr, 1865: 8 [Formicidae]; Mayr, 1868b: 47 [Formicidae].

Formica in Camponotinae: Forel, 1878: 373 [Camponotidae]; Emery & Forel, 1879: 450 [Camponotidae]; Dalla Torre, 1893: 192.

Formica in Camponotinae, Camponotini: Forel, 1886b: 205.

Formica in Camponotinae, Formicini: Forel, 1893a: 165; Emery, 1895e: 772; Forel, 1899: 127; Wheeler,

W.M. 1910d: 143; Forel, 1912f: 89; Wheeler, W.M. 1915e: 120; Forel, 1917: 250.

Formica in Formicinae, Formicini: Ashmead, 1905b: 384; Bondroit, 1918: 41; Wheeler, W.M. 1922a: 699; Emery, 1925b: 241; all subsequent authors except the following.

Formica in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Junior synonyms of *FORMICA*

Formicina Shuckard, in Swainson & Shuckard, 1840: 172. Type-species: *Formica rufa*, by subsequent designation of Wheeler, W.M. 1911b: 164.

Taxonomic history

[Type-species not *Formica flava*, unjustified subsequent designation by Emery, 1916a: 61 (footnote); repeated by Emery, 1916b: 239 and Wheeler, W.M. 1916f: 170.]

Formicina in Camponotinae, Formicini: Forel, 1917: 249.

Formicina as genus: Emery, 1916a: 61; Emery, 1916b: 239; Forel, 1917: 249; Bondroit, 1918: 19.

Formicina as subgenus of *Lasius*: Wheeler, W.M. 1916f: 172.

Formicina as junior synonym of *Lasius*: Emery, 1925b: 226; Brown, 1973b: 180 (anachronism).

Formicina as junior synonym of *Acanthomyops*: Donisthorpe, 1927: 209.

Formicina as junior synonym of *Formica*: Wheeler, W.M. 1911a: 860; Wheeler, W.M. 1911b: 164; Donisthorpe, 1943c: 646; Agosti, 1994: 106; Bolton, 1994: 50. [*Formica* and *Formicina* share the same type-species, synonymy is therefore absolute.]

Neoformica Wheeler, W.M. 1913a: 82 [as subgenus of *Formica*]. Type-species: *Formica pallidefulva*, by original designation.

Taxonomic history

[*Neoformica* also described as new by Wheeler, W.M. 1913b: 548.]

Neoformica as subgenus of *Formica*: Wheeler, W.M. 1913a: 82; Wheeler, W.M. 1913b: 388 (in key); Forel, 1917: 250; Wheeler, W.M. 1922a: 700; Emery, 1925b: 244; Donisthorpe, 1943c: 673; Creighton, 1950a: 543.

Neoformica as junior synonym of *Formica*: Buren, 1968a: 39; Agosti, 1994: 107.

Raptiformica Forel, 1913c: 361 [as subgenus of *Formica*]. Type-species: *Formica sanguinea*, by original designation.

Taxonomic history

Raptiformica as subgenus of *Formica*: Forel, 1917: 250; Emery, 1925b: 258; Donisthorpe, 1943d: 723; Creighton, 1950a: 460.

Raptiformica as junior synonym of *Formica*: Wheeler, W.M. 1922a: 699 (footnote); Smith, M.R. 1951: 860; Smith, D.R. 1979: 1448; Agosti, 1994: 107.

Serviformica Forel, 1913c: 361 [as subgenus of *Formica*]. Type-species: *Formica fusca*, by original designation.

Taxonomic history

Serviformica as subgenus of *Formica*: Forel, 1913c: 361; Forel, 1917: 250; Emery, 1925b: 245; Donisthorpe, 1943d: 725.

Serviformica as junior synonym of *Formica*: Wheeler, W.M. 1922a: 699 (footnote); Smith, M.R. 1951: 860; Francoeur, 1973: 34; Smith, D.R. 1979: 1448; Agosti, 1994: 106.

Coptoformica Müller, 1923: 146 [as subgenus of *Formica*]. Type-species: *Formica exsecta*, by subsequent designation of Donisthorpe, 1941c: 37.

Taxonomic history

Coptoformica as junior synonym of *Formica*: Smith, M.R. 1951: 860; Smith, D.R. 1979: 1448; Agosti, 1994: 107.

Adformica Lomnicki, 1925: 164 [as subgenus of *Formica*]. Type-species: *Formica exsecta*, by subsequent designation of Donisthorpe, 1927: 316.

Taxonomic history

Adformica as junior synonym of *Coptoformica*: Stitz, 1939: 306; Donisthorpe, 1943c: 620 (as *Adformica* and *Coptoformica* share the same type-species synonymy is absolute).

Iberoformica Tinaut, 1990a: 282 [as subgenus of *Formica*]. Type-species: *Formica subrufa*, by original designation.

Taxonomic history

Iberoformica as junior synonym of *Formica*: Agosti, 1994: 107.

Genus references

Mayr, 1855: 300 (diagnosis, Austria species key); Smith, F. 1858b: 1 (diagnosis); Mayr, 1861: 46 (Europe species key); Roger, 1863b: 12 (catalogue); Mayr, 1863: 410 (catalogue); Mayr, 1865: 8 (diagnosis); André, 1874: 182 (Europe species key); Forel, 1874: 51 (Switzerland species key); Forel, 1878: 373 (diagnosis); André, 1882b: 176 (Europe & Algeria species key); Cresson, 1887: 255 (U.S.A. catalogue); Provancher, 1887: 232 (Canada species key); Nasonov, 1889: 61 (Russia species key); Dalla Torre, 1893: 192 (catalogue); Emery, 1893e: 643 (North America species key); Forel, 1894a: 402 (India species key); Bingham, 1903: 334 (India species key); Ruzsky, 1905: 318 (Russian Empire species key); Wasmann, 1906: 8 (Luxemburg species key); Emery, 1909b: 180 (Palaeartic species key); Bondroit, 1910: 482 (Belgium species key); Wheeler, W.M. 1913b: 387 (subgenera, species groups, all species keys); Stitz, 1914: 88 (Central Europe species key); Donisthorpe, 1915: 244 (Britain species key); Emery, 1916b: 257 (Italy species key); Wheeler, W.M. 1916g: 594 (U.S.A., Connecticut species key); Bondroit, 1917: 174 (France *F. rufa* group, key); Bondroit, 1918: 41 (France & Belgium species key); Wheeler, W.M. 1922a: 699 (subgenera key); Emery, 1925b: 241 (diagnosis, subgenera key, catalogue); Emery, 1925b: 244 (*F. (Neoformica)*

diagnosis, catalogue; Emery, 1925b: 245 (*F. (Serviformica)* diagnosis, catalogue; Emery, 1925b: 251 (*F. (Formica)* diagnosis, catalogue; Emery, 1925b: 258 (*F. (Raptiformica)* diagnosis, catalogue; Lomnicki, 1925: 171 (Poland species key); Kuznetsov-Ugamsky, 1926: 93 (Turkestan species key); Karavaiev, 1927a: 282 (Ukraine species key); Donisthorpe, 1927: 284 (Britain species key); Arnol'di, 1933b: 603 (Russia species key); Karavaiev, 1936: 220 (Ukraine species key); Menozzi, 1939: 321 (Himalaya & Tibet species key); Stitz, 1939: 306 (Germany species key); Creighton, 1940: 1 (North America *F. rufa* subspecies key); Kratochvíl, 1941: 103 (Central Europe species key); Novák & Sadil, 1941: 103 (Central Europe species key); Cole, 1942: 375 (U.S.A., Utah species key); Holgersen, 1943: 175 (Norway species key); Holgersen, 1944: 200 (Norway species key); Buren, 1944: 299 (U.S.A., Iowa species key); Boven, 1947: 187 (Belgium species key); Creighton, 1950a: 456 (North America species key); Chapman & Capco, 1951: 197 (Asia checklist); Yarrow, 1954: 229 (Britain *F. fusca* group); Yarrow, 1955: 29 (Britain *F. rufa* group, key); Wilson & Brown, 1955: 108 (*F. sanguinea* & *F. neogagates* groups, synopsis); Boven, 1959: 12 (Netherlands species key); Betrem, 1960: 75 (*F. rufa* group, key); Gregg, 1963: 498 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 205 (U.S.A., North Dakota species key); Cotti, 1963: 1 (*F. rufa* group, bibliography 1930-61); Dlussky, 1964: 1026 (former U.S.S.R. *F. (Coptoformica)* species key); Collingwood, 1964: 109 (Britain species key); Brown, 1965b: 181 (*F. integra* subgroup); Dlussky, 1965: 15 (Mongolia and Tibet species key); Dlussky, 1967a: 39 (Palaeartic species key); Dlussky, 1967b: 80 (*Baltic Amber species key); Bernard, 1967: 285 (diagnosis, Western Europe species key); Buren, 1968a: 36 (Nearctic *F. sanguinea* group species key); Boven, 1970: 34 (Netherlands species key); Dlussky & Pisarski, 1971: 145 (Poland species key); Francoeur, 1973: 272 (Nearctic *F. fusca* group, revision, key); Bolton & Collingwood, 1975: 6 (Britain species key); Tarbinsky, 1976: 177 (Kirgizstan species key); Boven, 1977: 94 (Belgium species key); Kutter, 1977b: 236 (Switzerland species key); Arnol'di & Dlussky, 1978: 552 (former European U.S.S.R. species key); Collingwood, 1978: 93 (Iberian Peninsula species key); Collingwood, 1979: 112 (Fennoscandia & Denmark species key); Smith, D.R. 1979: 1448 (North America catalogue); Douwes, 1979: 187 (*F. rufa* group systematics); Kupyanskaya, 1980: 95 (Far Eastern Russia species key); Allred, 1982: 446 (U.S.A., Utah species key); Kupyanskaya, 1984: 103 (Far Eastern Russia *F. truncorum* complex, key); Snelling & Buren, 1985: 71 (Nearctic *F. sanguinea* group, key); Gösswald, 1985: 274 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 76 (U.S.A., Nevada species key); Nilsson & Douwes, 1987: 74 (Norway species key); Agosti & Collingwood, 1987: 285 (Balkans species key); Gösswald, 1989: 49 (*F. rufa* group taxonomy); Agosti & Bolton, 1990b: 149 (characters); Wu, J. 1990: 4 (China species key); Dlussky, Soyunov & Zabelin, 1990: 138 (Turkmenistan species key); Kupyanskaya, 1990: 174 (Far Eastern Russia species key); Morisita, Kubota, Onoyama, *et al.*, 1991: 31 (Japan species key); Atanasov & Dlussky, 1992: 255 (Bulgaria species key); Agosti, 1994: 106 (diagnosis, review of genus); Radchenko, 1994a: 112 (South Siberia species key); Arakelian, 1994: 89 (Armenia species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 190 (catalogue); Douwes, 1995: 94 (Sweden species key); Kupyanskaya, 1995: 353 (Far Eastern Russia species key); Wu, J. & Wang, 1995: 138 (China species key); Seifert, 1996: 201 (Central Europe species key); Skinner & Allen, 1996: 41 (Britain species key); Collingwood & Prince, 1998: 25 (Portugal species key); Tinaut, A. & Martínez-Ibáñez, 1998: 36 (Iberian Peninsula *F. rufa*, *F. sanguinea* & *F. exsecta* groups, key); Seifert, 2000: 563 (Palaeartic *F. (Coptoformica)* species key); Czechowski, Radchenko & Czechowska, 2002: 148 (Poland species key); Seifert, 2002: 267 (*F. cinerea* group revision, key).

Genus *GLAPHYROMYRMEX

**Glaphyromyrmex* Wheeler, W.M. 1915e: 131. Type-species: **Glaphyromyrmex oligocenicus*, by monotypy.

Taxonomic history

**Glaphyromyrmex* in Camponotinae, Formicini: Wheeler, W.M. 1915e: 131.

**Glaphyromyrmex* in Formicinae, Formicini: Donisthorpe, 1943c: 647; Dlussky, 1967: 86; Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50; Bolton, 1995b: 208.

Genus POLYERGUS

Polyergus Latreille, 1804: 179. Type-species: *Formica rufescens*, by monotypy.

Taxonomic history

Polyergus in Formicites: Lepeletier de Saint-Fargeau, 1835: 198.

Polyergus in Formicidae: Smith, F. 1858b: 1.

Polyergus in Formicinae: Mayr, 1855: 383 [Formicidae]; Mayr, 1861: 43 [Formicinae]; Mayr, 1862: 653 [Formicidae]; Mayr, 1865: 8 [Formicidae].

Polyergus in Camponotinae: Forel, 1878: 367 [Camponotidae]; Dalla Torre, 1893: 214.

Polyergus in Camponotinae, Camponotini: Forel, 1886b: 200.

Polyergus in Camponotinae, Formicini: Forel, 1893a: 165; Emery, 1895e: 772; Forel, 1899: 128; Wheeler, W.M. 1910d: 143; Forel, 1912f: 89; Forel, 1917: 250.

Polyergus in Formicinae, Formicini: Ashmead, 1905b: 384; Bondroit, 1918: 41; Wheeler, W.M. 1922a: 699; Emery, 1925b: 267; all subsequent authors except the following.

Polyergus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus references

Mayr, 1855: 383 (diagnosis); Roger, 1863b: 12 (catalogue); Mayr, 1863: 443 (catalogue); Mayr, 1865: 8 (diagnosis); Forel, 1878: 373 (diagnosis); André, 1882b: 162 (Europe & Algeria species); Cresson, 1887: 255 (U.S.A. catalogue); Dalla Torre, 1893: 214 (catalogue); Emery, 1925b: 267 (diagnosis, catalogue); Buren, 1944: 310 (U.S.A., Iowa species key); Smith, M.R. 1947d: 152 (U.S.A. species key); Creighton,

1950a: 556 (North America species key); Chapman & Capco, 1951: 203 (Asia checklist); Gregg, 1963: 632 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 274 (U.S.A., North Dakota species key); Bernard, 1967: 329 (diagnosis); Wheeler, J. 1968: 156 (Nearctic species, male genitalia); Smith, D.R. 1979: 1466 (North America catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 95 (U.S.A., Nevada species key); Kupyanskaya, 1990: 207 (Far Eastern Russia species key); Agosti, 1994: 109 (diagnosis, review of genus); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 342 (catalogue); Kupyanskaya, 1995: 361 (Far Eastern Russia species key);

Genus *PROFORMICA*

Proformica Ruzsky, 1902b: 13 [as subgenus of *Formica*]. Type-species: *Formica nasuta*, by monotypy.

Taxonomic history

[*Proformica* also described as new by Ruzsky, 1903b: 303.]

Proformica in Formicinae, Lasiini: Ashmead, 1905b: 384.

Proformica in Camponotinae, Formicini: Forel, 1917: 250.

Proformica in Formicinae, Formicini: Bondroit, 1918: 40; Wheeler, W.M. 1922a: 699; Emery, 1925b: 242; all subsequent authors except the following.

Proformica in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Proformica as subgenus of *Formica*: Ruzsky, 1902b: 13; Wheeler, W.M. 1910d: 143; Forel, 1917: 250; Wheeler, W.M. 1922a: 699; Emery, 1925b: 242; Donisthorpe, 1943c: 687; Creighton, 1950a: 457.

Proformica as genus: Bondroit, 1918: 40; Kuznetsov-Ugamsky, 1927b: 26; Kuznetsov-Ugamsky, 1928: 7.

Genus references

Emery, 1925b: 242 (*Formica* (*Proformica*) diagnosis, catalogue); Kuznetsov-Ugamsky, 1927b: 28 (Turkestan species key); Kuznetsov-Ugamsky, 1928: 7 (central Asia species key); Bernard, 1967: 282 (diagnosis, Western Europe species key); Dlussky, 1969: 231 (Russia and contiguous countries, key); Tarbinsky, 1976: 165 (Kirgizstan species key); Collingwood, 1978: 92 (Iberian Peninsula species key); Agosti & Collingwood, 1987: 287 (Balkans species key); Atanasov & Dlussky, 1992: 287 (Bulgaria species key); Agosti, 1994: 112 (diagnosis, review of genus); Radchenko, 1994a: 115 (South Siberia species key); Arakelian, 1994: 109 (Armenia species key); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 368 (catalogue); Collingwood & Prince, 1998: 27 (Portugal species key); Wu, J. & Wang, 1995: 148 (China species key).

Genus **PROTOFORMICA*

**Protoformica* Dlussky, 1967b: 83 [as subgenus of *Formica*]. Type-species: **Formica (Protoformica) proformicoides*, by original designation.

Taxonomic history

**Protoformica* in Formicinae, Formicini: Dlussky & Fedoseeva, 1988: 77.

**Protoformica* as genus: Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 50; Bolton, 1995b: 369.

Genus *ROSSOMYRMEX*

Rossomyrmex Arnol'di, 1928b: 299. Type-species: *Rossomyrmex proformicarum*, by original designation.

Taxonomic history

Rossomyrmex in Formicinae, Formicini: Donisthorpe, 1943d: 725; all subsequent authors except the following.

Rossomyrmex in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Genus references

Agosti, 1994: 112 (diagnosis, review of genus); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 382 (catalogue).

Tribe MELOPHORINI

Melophorini Forel, 1912f: 88 (diagnosis in key). Type-genus: *Melophorus*.

Taxonomic history

Melophorini as tribe of Camponotinae: Forel, 1912f: 88; Forel, 1917: 248.

Melophorini as tribe of Formicinae: Wheeler, W.M. 1922a: 692; Emery, 1925b: 10; Wheeler, W.M. 1935c: 69; all subsequent authors. [*Taxonomy*, p. 28.]

Genus: *Melophorus*.

Tribe references

Forel, 1893a: 165 (synoptic classification); Emery, 1895e: 772 (synoptic classification); Forel, 1917: 248 (synoptic classification); Wheeler, W.M. 1922a: 694 (genera key); Emery, 1925b: 10 (diagnosis, genera key, catalogue); Brown, 1955b: 471 (review of tribe); Wheeler, G.C. & Wheeler, J. 1970: 652 (larva diagnosis); Wheeler, G.C. & Wheeler, J. 1976: 62 (larva, review & synthesis); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Hölldobler & Wilson, 1990: 17 (synoptic classification); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1039 (census); Bolton, 1995b: 12 (catalogue).

Genus of Melophorini

Genus *MELOPHORUS*

Melophorus Lubbock, 1883: 51. Type-species: *Melophorus bagoti*, by monotypy.

Taxonomic history

Melophorus in Camponotinae: Dalla Torre, 1893: 175.

Melophorus in Camponotinae, Plagiolepidini: Forel, 1886b: 213; Forel, 1893a: 165; Emery, 1895e: 772; Wheeler, W.M. 1910d: 143.

Melophorus in Formicinae, Lasiini: Ashmead, 1905b: 384.

Melophorus in Camponotinae, Melophorini: Forel, 1912f: 88; Forel, 1917: 248.

Melophorus in Formicinae, Melophorini: Wheeler, W.M. 1922a: 694; Emery, 1925b: 10; Wheeler, W.M. 1935c: 71; Brown, 1955b: 474; all subsequent authors except the following.

Melophorus in Formicinae, *Formica* genus group: Agosti, 1991: 295.

Junior synonyms of *MELOPHORUS*

Erimelophorus Wheeler, W.M. 1935c: 71 [as subgenus of *Melophorus*]. Type-species: *Melophorus wheeleri*, by original designation.

Taxonomic history

Erimelophorus as junior synonym of *Melophorus*: Brown, 1955b: 474.

Trichomelophorus Wheeler, W.M. 1935c: 71 [as subgenus of *Melophorus*]. Type-species: *Melophorus hirsutus*, by original designation.

Taxonomic history

Trichomelophorus as junior synonym of *Melophorus*: Brown, 1955b: 474.

Genus references

Dalla Torre, 1893: 175 (catalogue); Emery, 1925b: 10 (diagnosis, catalogue); Brown, 1955b: 474 (review of genus); Taylor & Brown, D.R. 1985: 122 (Australia catalogue); Taylor, 1987a: 37 (Australia checklist); Bolton, 1994: 50 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 250 (catalogue); Shattuck, 1999: 96 (Australia synopsis).

Genera *incertae sedis* in Formicinae

Genus **IMHOFFIA*

**Imhoffia* Heer, 1850: 153. Type-species: **Imhoffia nigra*, by monotypy.

Taxonomic history

**Imhoffia incertae sedis* in Formicinae: Handlirsch, 1907: 868; Donisthorpe, 1943c: 653; Bolton, 1994: 51; Bolton, 1995b: 217.

Genus **KYROMYRMA*

**Kyromyrma* Grimaldi & Agosti, 2000: 13681. Type-species: **Kyromyrma neffi*, by original designation.

Taxonomic history

**Kyromyrma incertae sedis* in Formicinae: Grimaldi & Agosti, 2000: 13681.

Genus **LEUCOTAPHUS*

**Leucotaphus* Donisthorpe, 1920: 89. Type-species: **Leptothorax gurnetensis*, by original designation.

Taxonomic history

**Leucotaphus* in Camponotinae, Formicini: Donisthorpe, 1920: 89.

**Leucotaphus* in Formicinae, Formicini: Donisthorpe, 1943c: 657; Bolton, 1994: 50; Bolton, 1995b: 246.

Genus **PROTRECHINA*

**Protrechina* Wilson, 1985b: 211. Type-species: **Protrechina carpenteri*, by original designation.

Taxonomic history

**Protrechina incertae sedis* in Formicinae: Wilson, 1985b: 211; Dlussky & Fedoseeva, 1988: 77.

**Protrechina* in Formicinae, Prenolepidini: Hölldobler & Wilson, 1990: 18 (anachronism).

**Protrechina* in Formicinae, Lasiini: Bolton, 1994: 50; Bolton, 1995b: 369.

Genus **TYLOLASIUS*

**Tylolasius* Zhang, 1989: 295. Type-species: **Tylolasius inflatus*, by original designation.

Collective group name in Formicinae

**FORMICITES*

**Formicites* Dlussky, 1981: 75 [collective group name, without included named taxa.]

The myrmeciomorph subfamilies [*Taxonomy*, p. 28]

SUBFAMILY MYRMECIINAE

Subfamily MYRMECIINAE

Myrmeciidae Emery, 1877a: 71. Type-genus: *Myrmecia*.

Taxonomic history

Myrmeciinae as group of Myrmicidae: Emery, 1877a: 71 [Myrmeciidae].

Myrmeciinae as subfamily of Poneridae: Ashmead, 1905b: 382.

Myrmeciinae as subfamily of Formicidae: Clark, 1951: 17; Brown, 1954b: 22; all subsequent authors. [*Taxonomy*, p. 29.]

Tribes: Myrmeciini, Prionomyrmecini.

Genera (extinct) *incertae sedis* in Myrmeciinae: **Ameghinoia*, **Archimyrmex*, **Polanskiella*.

Tribe MYRMECIINI

Myrmeciidae Emery, 1877a: 71. Type-genus: *Myrmecia*.

Taxonomic history

Myrmeciini as tribe of Ponerinae: Forel, 1893a: 162 [Myrmecii]; Emery, 1895e: 766 [Myrmecii]; Emery, 1901a: 36 [Myrmecii]; Wheeler, W.M. 1910d: 134 [Myrmecii]; Emery, 1911b: 17; Forel, 1917: 235; Wheeler, W.M. 1922a: 636, 640; subsequent authors to the following.

Myrmeciini as tribe of Myrmeciinae: Brown, 1954b: 23; all subsequent authors. [*Taxonomy*, p. 29.]

Genus: *Myrmecia*.

Subfamily and tribe Myrmeciini references

Smith, F. 1858b: 143 (diagnosis); Roger, 1863b: 22 (catalogue); Mayr, 1862: 723 (all species key); Mayr, 1863: 429 (catalogue); Mayr, 1865: 18 (diagnosis); Forel, 1893a: 162 (diagnosis); Dalla Torre, 1893: 19 (catalogue); Emery, 1895e: 766 (diagnosis); Wheeler, W.M. 1910d: 134 (diagnosis); Emery, 1911b: 17 (diagnosis, subgenera key, catalogue); Forel, 1917: 235 (synoptic classification); Clark, 1943: 85 (*Promyrmecia* species key); Clark, 1951: 21, 119 (*Myrmecia*, *Promyrmecia* species revisions, keys); Brown, 1953e: 1 (revisionary notes); Brown, 1954b: 22 (diagnosis, phylogeny); Eisner, 1957: 449 (proventriculus morphology); Brown, 1958c: 10 (New Zealand); Gotwald, 1969: 113 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 38 (diagnosis); Brown, 1973b: 165 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 46 (larvae, review & synthesis); Greenslade, 1979: 11 (South Australia, review); Kugler, C. 1980: 263 (sting structure); Taylor & Brown, D.R. 1985: 6 (Australia catalogue); Wheeler, G.C. & Wheeler, J. 1985: 256 (synoptic classification); Billen, 1986: 170 (Dufour's gland); Taylor, 1987a: 41 (Australia, New Caledonia & New Zealand checklists); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Billen, 1988: 27 (comparison of genera); Billen, 1990: 133 (sting bulb gland); Ogata, 1991a: 353 (species groups review, phylogeny); Ogata & Taylor, 1991: 1623 (all species review, key); Brandão, 1991: 390 (Neotropical *fauna, synoptic classification); Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 73 (diagnosis, synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 270 (catalogue); Shattuck, 1999: 119 (Australia, synopsis); Baroni Urbani, 2000: 480 (phylogeny); Ward & Brady, 2003 (in press) (phylogeny, classification).

Genus of Myrmeciini

Genus MYRMECIA

Myrmecia Fabricius, 1804: 423. Type-species: *Formica gulosa*, by subsequent designation of Shuckard, in Swainson & Shuckard, 1840: 173.

Taxonomic history

Myrmecia in Poneridae, Myrmicidae: Smith, F. 1858b: 143.

Myrmecia in Myrmicinae: Mayr, 1865: 18 [Myrmicidae]; Mayr, 1866b: 896 [Myrmicidae].

Myrmecia in Myrmicidae, Myrmeciidae: Emery, 1877a: 81.

Myrmecia in Ponerinae: Mayr, 1862: 714 [Poneridae]; Dalla Torre, 1893: 19.

Myrmecia in Poneridae, Myrmeciinae: Ashmead, 1905b: 382.

Myrmecia in Ponerinae, Myrmeciini: Forel, 1893a: 162 [Myrmecii]; Emery, 1895e: 766 [Myrmecii]; Wheeler, W.M. 1910d: 134 [Myrmecii]; Emery, 1911b: 17; Forel, 1917: 235; Wheeler, W.M. 1922a: 640; Clark, 1934c: 50; Donisthorpe, 1943c: 665.

Myrmecia in Myrmeciinae: Clark, 1951: 16 (in key); Brown, 1954b: 23; all subsequent authors.

Junior synonyms of MYRMECIA

Promyrmecia Emery, 1911b: 19 [as subgenus of *Myrmecia*]. Type-species: *Myrmecia aberrans*, by original designation.

Taxonomic history

Promyrmecia as subgenus of *Myrmecia*: Forel, 1917: 235; Wheeler, W.M. 1922a: 640; Clark, 1927: 37; Donisthorpe, 1943c: 688.

Promyrmecia as genus: Clark, 1943: 84; Clark, 1951: 119.

Promyrmecia as junior synonym of *Myrmecia*: Brown, 1953e: 1; all subsequent authors.

Pristomyrmecia Emery, 1911b: 21 [as subgenus of *Myrmecia*]. Type-species: *Myrmecia mandibularis*, by original designation.

Taxonomic history

Pristomyrmecia as subgenus of *Myrmecia*: Emery, 1911b: 21; Wheeler, W.M. 1922a: 640.

Pristomyrmecia as junior synonym of *Promyrmecia*: Clark, 1927: 37; Clark, 1943: 84; Clark, 1951: 119.

Halmamyrmecia Wheeler, W.M. 1922b: 195 [as subgenus of *Myrmecia*]. Type-species: *Myrmecia pilosula*, by original designation.

Taxonomic history

Halmamyrmecia as junior synonym of *Promyrmecia*: Clark, 1927: 37; Clark, 1943: 84; Clark, 1951: 119.

Genus references: see above.

Tribe PRIONOMYRMECINI

Prionomyrmicini Wheeler, W.M. 1915e: 25. Type-genus: **Prionomyrmex*.

Taxonomic history

Prionomyrmecini as tribe of Ponerinae: Wheeler, W.M. 1915e: 25 [Prionomyrmecini].

Prionomyrmecini as tribe of Myrmeciinae: Brown, 1954b: 22 [Prionomyrmecini]; Baroni Urbani, Bolton & Ward, 1992: 303; Bolton, 1994: 73; Bolton, 1995b: 15; Ward & Brady, 2003 (in press).

Prionomyrmecini as subfamily of Formicidae: Baroni Urbani, 2000: 479 [Prionomyrmecinae]. [*Taxonomy*, p. 30.]

Junior synonym of PRIONOMYRMECINI

Nothomyrmecii Clark, 1934a: 8. Type-genus: *Nothomyrmecia*.

Taxonomic history

Nothomyrmecii as tribe of Ponerinae: Clark, 1934a: 8.

Nothomyrmecii as subfamily of Formicidae: Clark, 1951: 16 (in key) [Nothomyrmeciinae]; Taylor, 1978a: 982; Snelling, 1981: 399; Taylor & Brown, D.R. 1985: 5; Dlussky & Fedoseeva, 1988: 78; Bolton, 1990c: 1362; Hölldobler & Wilson, 1990: 11; Baroni Urbani, Bolton & Ward, 1992: 317; Bolton, 1994: 152.

Nothomyrmecii as tribe of Myrmeciinae: Brown, 1953e: 3 [Nothomyrmeciini]; Brown, 1954b: 23 [Nothomyrmeciini]; Wheeler, G.C. & Wheeler, J. 1985: 256 [Nothomyrmeciini].

Nothomyrmecii as tribe of Nothomyrmeciinae: Bolton, 1994: 152 [Nothomyrmeciini].

Nothomyrmecii as junior synonym of Prionomyrmecini: Baroni Urbani, 2000: 479 [Nothomyrmecinae]; Ward & Brady, 2003 (in press).

Genera: *Nothomyrmecia*, **Prionomyrmex*.

Tribe references: see under genera.

Genera of Prionomyrmecini**Genus NOTHOMYRMECIA**

Nothomyrmecia Clark, 1934a: 17. Type-species: *Nothomyrmecia macrops*, by original designation.

Taxonomic history

Nothomyrmecia in Ponerinae, Nothomyrmecii: Clark, 1934a: 8.

Nothomyrmecia in Myrmicinae, Myrmeciini: Donisthorpe, 1943c: 675.

Nothomyrmecia in Ponerinae, Myrmeciini: Donisthorpe, 1944a: 59.

Nothomyrmecia in Myrmeciinae, Nothomyrmeciini: Brown, 1953e: 3; Brown, 1973b: 165; Wheeler, G.C. & Wheeler, J. 1985: 256.

Nothomyrmecia in Nothomyrmeciinae: Clark, 1951: 16; Taylor, 1978a: 982; Snelling, 1981: 399; Wheeler, G.C., Wheeler, J. & Taylor, 1980: 136; Taylor & Brown, D.R. 1985: 5; Dlussky & Fedoseeva, 1988: 78; Bolton, 1990c: 1362; Hölldobler & Wilson, 1990: 11; Baroni Urbani, Bolton & Ward, 1992: 317.

Nothomyrmecia in Nothomyrmeciinae, Nothomyrmeciini: Bolton, 1994: 152.

Nothomyrmecia as junior synonym of **Prionomyrmex*: Baroni Urbani, 2000: 479.

Nothomyrmecia as genus: all authors except the entry above; Ward & Brady, 2003 (in press).

Genus references

Brown & Wilson, 1959a: 25 (historical); Taylor, 1978a: 979 (revision, anatomy, phylogeny); Greenslade, 1979: 13 (South Australia, review); Kugler, C. 1980: 263 (sting structure); Wheeler, G.C., Wheeler, J. & Taylor, 1980: 131 (larva); Taylor & Brown, D.R. 1985: 5 (Australia, catalogue); Billen, 1988: 27 (comparison of genera); Billen, 1990: 133 (sting bulb gland); Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 152 (diagnosis, synoptic classification); Bolton, 1995a: 1042 (census); Bolton, 1995b: 13, 292 (catalogue); Shattuck, 1999: 58, 177 (Australia, synopsis); Baroni Urbani, 2000: 478 (diagnosis, phylogeny); Ward & Brady, 2003 (in press) (phylogeny, classification).

Genus *PRIONOMYRMEX

**Prionomyrmex* Mayr, 1868b: 77. Type-species: **Prionomyrmex longiceps*, by monotypy.

Taxonomic history

**Prionomyrmex* in Myrmicidae, Myrmeciidae: Emery, 1877a: 81.

**Prionomyrmex* in Ponerinae: Mayr, 1868b: 77 [Poneridae]; Dalla Torre, 1893: 22.

**Prionomyrmex* in Ponerinae, Prionomyrmecini: Wheeler, 1915e: 25.

**Prionomyrmex* in Myrmeciinae, Prionomyrmecini: Brown, 1954b: 22; Bolton, 1994: 73; Ward & Brady, 2003 (in press).

**Prionomyrmex* in Prionomyrmecinae: Baroni Urbani, 2000: 479.

Genus references

Baroni Urbani, 2000: 478 (diagnosis, revision, phylogeny); Ward & Brady, 2003 (phylogeny, classification) (in press).

Genera incertae sedis in Myrmeciinae**Genus *ARCHIMYRMEX**

**Archimyrmex* Cockerell, 1923: 52. Type-species: **Archimyrmex rostratus*, by monotypy.

Taxonomic history

**Archimyrmex incertae sedis* in Ponerinae: Cockerell, 1923: 52.

**Archimyrmex* in Ponerinae, Myrmeciini: Donisthorpe, 1943c: 625.

**Archimyrmex incertae sedis* in Myrmicinae: Wheeler, W.M. 1928b: 117; Carpenter, 1930: 17; Bolton, 1994: 106; Bolton, 1995b: 75. [See postscript, p. 370.]

Genus *AMEGHINOIA

**Ameghinoia* Viana & Haedo Rossi, 1957: 109. Type-species: **Ameghinoia piatnitzkyi*, by original designation.

Taxonomic history

**Ameghinoia* in Ponerinae, Ponerini?: Kempf, 1972a: 20.

**Ameghinoia incertae sedis* in Myrmecinae: Snelling, 1981: 390; Hölldobler & Wilson, 1990: 11; Bolton, 1994: 73; Bolton, 1995b: 63 (catalogue); Ward & Brady, 2003 (in press). [See postscript, p. 370.]

Genus references

Ward & Brady, 2003 (in press).

Genus *POLANSKIELLA

**Polanskiella* Rossi de Garcia, 1983: 19. Type-species: **Polanskiella smekali*, by monotypy.

Taxonomic history

**Polanskiella incertae sedis* in Formicidae: Rossi de Garcia, 1983: 19.

**Polanskiella* in Myrmecinae: Petrusevicius, 1999: 96.

**Polanskiella incertae sedis* in Myrmecinae: Ward & Brady, 2003 (in press). [See postscript, p. 370.]

SUBFAMILY PSEUDOMYRMECINAE

Subfamily PSEUDOMYRMECINAE

Pseudomyrmecinae Smith, M.R. 1952a: 98. Type-genus: *Pseudomyrmex*.

Taxonomic history

Pseudomyrmecinae as family: Bernard, 1953: 221 [Pseudomyrmecidae].

Pseudomyrmecinae as subfamily of Formicidae: Smith, M.R. 1952a: 98; Brown, 1954b: 23; all subsequent authors. [Taxonomy, p. 30.]

Tribe: Pseudomyrmecini.

Tribe PSEUDOMYRMECINI

Pseudomyrmecinae Smith, M.R. 1952a: 98. Type-genus: *Pseudomyrmex*.

Taxonomic history

Pseudomyrmecini as tribe of Pseudomyrmecinae: Bolton, 1994: 185.

Junior synonyms of PSEUDOMYRMECINI

Pseudomyrmidae Forel, 1885: 377. Type-genus: *Pseudomyrma* (junior synonym of *Pseudomyrmex*).

Taxonomic history

Pseudomyrmidae as tribe of Myrmicinae: Forel, 1885: 377 [Pseudomyrmidae]; Forel, 1893a: 164 [Pseudomyrmii]; Forel, 1895a: 121 [Pseudomyrmii]; Emery, 1895e: 768 [Pseudomyrmii (subfamily spelled Myrmicini)]; Forel, 1899: 86 [Pseudomyrmii]; Wheeler, W.M. 1910d: 139 [Pseudomyrmii]; Forel, 1899: 86 [Pseudomyrmini]; Emery, 1914a: 34 [Pseudomyrmini]; Wheeler, W.M. 1915e: 40 [Pseudomyrmini]; Arnold, 1916: 173 [Pseudomyrmini]; Forel, 1917: 240 [Pseudomyrmini]; Emery, 1921b: 21 [Pseudomyrmini].

Pseudomyrmidae as subfamily of Myrmecinae: Emery, 1894b: 383 [Pseudomyrminae]; Ashmead, 1905b: 383 [Pseudomyrminae].

Pseudomyrmidae as subfamily of Formicidae: Emery, 1899a: 8 [Pseudomyrminae]; Wheeler, W.M. 1920: 53 [Pseudomyrminae]; Wheeler, W.M. 1922a: 103, 632 [Pseudomyrminae]; Donisthorpe, 1922: xli [Pseudomyrminae]; Creighton, 1950a: 77 [Pseudomyrminae]; Chapman & Capco, 1951: 78 [Pseudomyrminae].

Pseudomyrmidae as junior synonym of Pseudomyrmecinae: Ward, 1990: 459.

Leptaleinae Smith, M.R. 1951: 788. Type-species: *Leptalea* (junior synonym of *Pseudomyrmex*).

Taxonomic history

Leptaleinae as subfamily of Formicidae: Smith, M.R. 1951: 788.

Leptaleinae as junior synonym of Pseudomyrmecinae: Smith, M.R. 1958: 112; all subsequent authors.

Genera: *Myrcidris*, *Pseudomyrmex*, *Tetraponera*.

Subfamily and tribe references

Forel, 1893a: 164 (diagnosis); Emery, 1895e: 768 (diagnosis); Wheeler, W.M. 1910d: 139 (diagnosis); Emery, 1914a: 34 (diagnosis, in key); Emery, 1921b: 21 (diagnosis, catalogue); Wheeler, W.M. 1922a: 103, 654, 795, 1014 (diagnosis, genera key, Afrotropical, Malagasy catalogues); Creighton, 1950a: 77 (North America); Brown & Nutting, 1950: 126 (venation, phylogeny); Brown, 1954b: 23 (phylogeny); Eisner, 1957: 452 (proventriculus morphology); Gotwald, 1969: 116 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 39 (diagnosis); Bolton, 1973a: 329 (West Africa, genera); Brown, 1973b: 166 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 52 (larvae, review & synthesis); Snelling, 1981: 393 (synoptic classification); Wheeler, G.C. & Wheeler, J. 1985: 257 (synoptic classification); Dlussky & Fedoseeva, 1988: 77 (synoptic classification); Ward, 1990: 449 (diagnosis, subfamily revision, genera key, phylogeny); Hölldobler & Wilson, 1990: 12 (synoptic classification); Baroni Urbani, Bolton & Ward, 1992: 317

(phylogeny); Jaffe, 1993: 13 (Neotropical, synoptic classification); Lattke, in Jaffe, 1993: 170 (Neotropical genera); Bolton, 1994: 184 (diagnosis, synoptic classification, genera key); Bolton, 1995a: 1042 (census); Bolton, 1995b: 15 (catalogue); Shattuck, 1999: 208 (Australia, synopsis); Baroni Urbani, 2000: 480 (phylogeny).

Genera of Pseudomyrmecini

Genus *MYRCIDRIS*

Myrcidris Ward, 1990: 465. Type-species: *Myrcidris epicharis*, by original designation.

Taxonomic history

Myrcidris in Pseudomyrmecinae: Ward, 1990: 465; all subsequent authors.

Genus references

Bolton, 1994: 184 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 270 (catalogue).

Genus *PSEUDOMYRMEX*

Pseudomyrmex Lund, 1831b: 106. Type-species: *Formica gracilis*, by subsequent designation of Smith, M.R. 1952a: 98.

Taxonomic history

Pseudomyrmex in Pseudomyrmecinae: Smith, M.R. 1952a: 98; all subsequent authors.

Junior synonyms of *PSEUDOMYRMEX*

Leptalea Erichson, 1839: 309. Type-species: *Formica gracilis*, by subsequent designation of Wheeler, W.M. 1911b: 166.

Taxonomic history

Leptalea in Pseudomyrmecinae: Donisthorpe, 1943c: 656.

Leptalea as junior synonym of *Pseudomyrma*: Smith, F. 1858b: 153; Roger, 1863b: 24; Smith, F. 1877: 58; Dalla Torre, 1893: 55; Emery, 1921b: 28.

[*Leptalea* Spinola, 1851: 52 and Spinola, 1853: 68, incorrect subsequent spellings.]

Pseudomyrma Guérin-Ménéville, 1844a: 427 [as subgenus of *Formica*]. Type-species: *Pseudomyrma bicolor*, by monotypy.

Taxonomic history

Pseudomyrma in Poneridae, Myrmicidae: Smith, F. 1858b: 153.

Pseudomyrma in Myrmicidae: Smith, F. 1871: 328; Smith, F. 1877: 58; Cresson, 1887: 262.

Pseudomyrma in Myrmicidae, Myrmeciidae: Emery, 1877a: 81.

Pseudomyrma in Myrmicinae: Mayr, 1865: 24 [Myrmicidae]; Dalla Torre, 1893: 55.

Pseudomyrma in Myrmicidae, Pseudomyrminae: Ashmead, 1905b: 383.

Pseudomyrma in Myrmicinae, Pseudomyrmini: Forel, 1893a: 164; Emery, 1895e: 768; Forel, 1899: 86; Wheeler, W.M. 1910d: 139; Emery, 1914a: 40; Forel, 1917: 240; Emery, 1921b: 28.

Pseudomyrma in Pseudomyrminae: Wheeler, W.M. 1922a: 654; Donisthorpe, 1941b: 27; Donisthorpe, 1943d: 722.

Pseudomyrma as junior synonym of *Pseudomyrmex*: Smith, M.R. 1952a: 98; Kempf, 1972a: 214; Ward, 1990: 469; Bolton, 1994: 184.

Myrmex Guérin-Ménéville, 1844a: 427. Type-species: *Myrmex perbosci*, by monotypy.

Taxonomic history

[Junior homonym of *Myrmex* Sturm, 1826: 32 (Coleoptera).]

Myrmex Guérin-Ménéville junior synonym of *Pseudomyrma*: Smith, F. 1858b: 153; Roger, 1863b: 24; Smith, F. 1877: 58; Dalla Torre, 1893: 55; Emery, 1921b: 28.

Clavanoda Enzmann, E.V. 1944: 61 [as "branch" of *Pseudomyrma*]. Type-species: *Formica gracilis*, by original designation.

Taxonomic history

Clavanoda as junior synonym of *Pseudomyrmex*: Ward, 1990: 469.

Ornatinoda Enzmann, E.V. 1944: 61 [as "branch" of *Pseudomyrma*]. Type-species: *Formica tenuis*, by original designation.

Taxonomic history

Ornatinoda as junior synonym of *Pseudomyrmex*: Ward, 1990: 469.

Triangulinoda Enzmann, E.V. 1944: 61 [as "branch" of *Pseudomyrma*]. Type-species: *Pseudomyrma spinicola*, by original designation.

Taxonomic history

Triangulinoda as junior synonym of *Pseudomyrmex*: Ward, 1990: 469.

Apedunculata Enzmann, E.V. 1944: 62 [as "branch" of *Pseudomyrma*]. Type-species: *Pseudomyrma sericea*, by original designation.

Taxonomic history

Apedunculata as junior synonym of *Pseudomyrmex*: Ward, 1990: 469.

Latinoda Enzmann, E.V. 1944: 62 [as "branch" of *Pseudomyrma*]. Type-species: *Pseudomyrma latinoda*, by original designation.

Taxonomic history

Latinoda as junior synonym of *Pseudomyrmex*: Ward, 1990: 469.

Genus references

Smith, F. 1858b: 153 (diagnosis); Roger, 1863b: 24 (catalogue); Mayr, 1863: 426, 451 (*Leptalea*,

Pseudomyrma catalogues); Mayr, 1865: 24 (diagnosis); Mayr, 1870a: 407 (Colombia + Panama (= New Grenada) species key); Smith, 1877b: 58 (checklist); Cresson, 1887: 262 (U.S.A. catalogue); Dalla Torre, 1893: 55 (catalogue); Emery, 1921b: 28 (diagnosis, catalogue); Gallardo, 1932a: 44 (Argentina species key); Enzmann, E.V. 1944: 62 (all species keys); Creighton, 1950a: 79 (North America species key); Kempf, 1961a: 373 (*P. gracilis* group, partial key); Kempf, 1972a: 215 (Neotropical catalogue); Alayo, 1974: 9 (Cuba species key); Smith, D.R. 1979: 1345 (North America catalogue); Ward, 1985: 215 (Nearctic species key); Billen, 1986: 173 (Dufour's gland); Ward, 1989: 407 (*P. oculatus* group, key); Ward, 1989: 430 (*P. subtilissimus* group, key); Ward, 1990: 469 (diagnosis, review of genus); Brandão, 1991: 373 (catalogue); Ward, 1992: 76 (*Dominican Amber species key); Ward, 1993: 130 (swollen-thorn *Acacia*-associated species key); Bolton, 1994: 184 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 370 (catalogue); Ward, 1999b: 473 (*P. viduus* group, and other *Tachigali*- and *Triplaris*-associated species key).

Genus *TETRAPONERA*

Tetraponera Smith, F. 1852: 44. Type-species: *Tetraponera atrata* (junior synonym of *Tetraponera nigra*), by subsequent designation of Wheeler, W.M. 1911b: 173.

Taxonomic history

Tetraponera in Formicidae, Poneridae: Smith, F. 1857: 70.

Tetraponera in Myrmicidae: Smith, F. 1877: 68.

Tetraponera in Myrmicinae, Pseudomyrmini: Forel, 1917: 240; Emery, 1921b: 24.

Tetraponera in Pseudomyrminae: Wheeler, W.M. 1922a: 654; all subsequent authors to the following.

Tetraponera in Pseudomyrmecinae: Taylor & Brown, D.R. 1985: 17.

Tetraponera as junior synonym of *Pseudomyrma*: Roger, 1863b: 24; Mayr, 1863: 451.

Tetraponera as junior synonym of *Sima*: Dalla Torre, 1893: 53; Bingham, 1903: 107; Emery, 1917: 95.

Tetraponera as subgenus of *Sima*: Emery, 1900c: 673; Emery, 1915b: 266; Arnold, 1916: 180; Forel, 1917: 240; Emery, 1921b: 24.

Tetraponera as genus: Smith, F. 1852: 44; Smith, F. 1857: 70; Smith, F. 1877: 68; Donisthorpe, 1916a: 244; Wheeler, W.M. 1922a: 654; Taylor & Brown, D.R. 1985: 17; Ward, 1990: 470; Bolton, 1994: 184.

Junior synonyms of *TETRAPONERA*

Sima Roger, 1863a: 178. Type-species: *Sima compressa* (junior synonym of *Tetraponera allaborans*), by monotypy.

Taxonomic history

[Type-species not *Eciton rufonigrum*, unjustified subsequent designation by Emery, 1915b: 266, repeated in Emery, 1917: 95 and Emery, 1921b: 22.]

Sima in Myrmicidae: Smith, F. 1871: 328.

Sima in Myrmicidae, Myrmeciidae: Emery, 1877a: 81.

Sima in Myrmicinae: Mayr, 1865: 25 [Myrmicidae]; Mayr, 1866b: 906 [Myrmicidae]; Dalla Torre, 1893: 53.

Sima in Myrmicidae, Pseudomyrminae: Ashmead, 1905b: 383.

Sima in Myrmicinae, Pseudomyrmini: Forel, 1893a: 164; Emery, 1895e: 768; Emery, 1914a: 40; Forel, 1917: 240; Wheeler, W.M. 1915e: 40; Arnold, 1916: 173; Emery, 1921b: 21.

Sima as genus: Roger, 1863a: 178; Mayr, 1863: 453; Mayr, 1868b: 100; Dalla Torre, 1893: 53; Emery, 1900c: 672; Bingham, 1903: 107; Emery, 1914a: 40; Emery, 1915b: 266; Arnold, 1916: 173; Emery, 1917: 95; Forel, 1917: 240; Emery, 1921b: 21.

Sima as junior synonym of *Tetraponera*: Smith, F. 1877: 68; Donisthorpe, 1916a: 244; Wheeler, W.M. 1920: 47; Wheeler, W.M. 1922a: 105; Donisthorpe, 1943d: 726; Ward, 1990: 470.

Pachysima Emery, 1912b: 97 [as subgenus of *Sima*]. Type-species: *Tetraponera aethiops*, by monotypy.

Taxonomic history

Pachysima in Myrmicinae, Pseudomyrmini: Forel, 1917: 240; Emery, 1921b: 22.

Pachysima in Pseudomyrminae: Wheeler, W.M. 1922a: 112, 654.

Pachysima as genus: Wheeler, W.M. 1918b: 308 (footnote); Wheeler, W.M. 1922a: 112, 654.

Pachysima as subgenus of *Sima*: Emery, 1912b: 97; Arnold, 1916: 174; Emery, 1921b: 22.

Pachysima as junior synonym of *Tetraponera*: Brown, 1973b: 183 [provisional]; Ward, 1990: 470.

Viticicola Wheeler, W.M. 1919d: 130 (in text). Type-species: *Sima tessmanni*, by original designation.

Taxonomic history

[*Viticicola* also as new in Wheeler, W.M. 1920: 53.]

Viticicola in Pseudomyrminae: Wheeler, W.M. 1922a: 107, 654.

Viticicola as junior synonym of *Tetraponera*: Brown, 1973b: 185 [provisional]; Ward, 1990: 470.

[*Viticicola* misspelled as *Viticola* by Donisthorpe, 1943d: 735.]

Parasima Donisthorpe, 1948c: 592 [as subgenus of *Tetraponera*]. [Unnecessary replacement name for *Sima* in the sense of Emery, 1921b: 23.]

Taxonomic history

Parasima as junior synonym of *Tetraponera*: Ward, 1990: 470.

Genus references

Mayr, 1863: 453 (catalogue); Mayr, 1865: 25 (*Sima* diagnosis); Mayr, 1867a: 82 (*Sima* diagnosis); Mayr, 1868b: 101 (*Baltic Amber species key); Smith, F. 1877: 68 (checklist); Dalla Torre, 1893: 53 (catalogue); Emery, 1900c: 17 (Asia & Australia species key); Forel, 1903: 708 (India & Sri Lanka species key); Bingham, 1903: 107 (India, Sri Lanka & Burma species key); Arnold, 1916: 173 (*Sima* diagnosis, South

Africa species key); Emery, 1921b: 21 (*Sima* diagnosis, subgenera key, catalogue); Emery, 1921b: 22 (*S. (Pachysima)* diagnosis, catalogue); Emery, 1921b: 24 (*S. (Tetraponera)* diagnosis, catalogue); Wheeler, W.M. 1922a: 112 (*Pachysima* species key); Wheeler, W.M. 1922a: 104, 107, 112 (*Tetraponera*, *Viticicola*, *Pachysima* diagnoses); Wheeler, W.M. 1922a: 795, 801 (Afrotropical *Tetraponera*, *Viticicola*, *Pachysima* catalogues); Wheeler, W.M. 1922a: 1014 (Malagasy catalogue); Taylor & Brown, D.R. 1985: 17 (Australia catalogue); Taylor, 1987a: 79 (Australia checklist); Wu, J. & Wang, 1990: 516 (China species key); Dlussky & Radchenko, 1990: 120 (Vietnam species key); Ward, 1990: 470 (diagnosis, review of genus, phylogeny); Bolton, 1994: 184 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 416 (catalogue); Wu, J. & Wang, 1995: 55 (China species key); Collingwood & Agosti, 1996: 312 (Saudi Arabia species key); Shattuck, 1999: 208 (Australia synopsis); Zhou, 2001: 64 (China, Guangxi species key); Ward, 2001: 596 (Oriental & Australian, all species, revision, key).

The dorylomorph subfamilies [*Taxonomy*, p. 31]

SUBFAMILY CERAPACHYINAE

Subfamily CERAPACHYINAE

Cerapachysii Forel, 1893a: 162. Type-genus: *Cerapachys*.

Taxonomic history

Cerapachyinae as family: Bernard, 1951: 1046 [Cerapachyidae]; Bernard, 1953: 215 [Cerapachyidae].

Cerapachyinae as junior synonym of Ponerinae: Brown, 1975: 14; Snelling, 1981: 387; Hölldobler & Wilson, 1990: 10.

Cerapachyinae as group of Dorylinae: Emery, 1901a: 36 [Cerapachinae].

Cerapachyinae as subfamily of Formicidae: Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 51, 632; Donisthorpe, 1922: xlv; Borgmeier, 1923: 50; Clark, 1924: 76; Clark, 1934c: 49; Donisthorpe, 1943c: 620; Creighton, 1950a: 56; Clark, 1951: 15 (in key); Chapman & Capco, 1951: 17; Smith, M.R. 1951: 781; Brown, 1954b: 26; Kusnezov, 1956: 11; Kusnezov, 1964: 48; Wheeler, G.C. & Wheeler, J. 1972: 37; Kempf, 1972a: 263; Wheeler, G.C. & Wheeler, J. 1976: 46; Smith, D.R. 1979: 1333; Wheeler, G.C. & Wheeler, J. 1985: 256; Ogata, 1987: 127; Bolton, 1990a: 66; Bolton, 1990c: 1356; Baroni Urbani, Bolton & Ward, 1992: 316; Jaffe, 1993: 9; Bolton, 1994: 18; Wu, J. & Wang, 1995: 47. [*Taxonomy*, p. 32.]

Tribes: Acanthostichini, Cerapachyini, Cyliindromyrmecini.

Subfamily references

Emery, 1895e: 765 (diagnosis); Wheeler, W.M. 1910d: 136 (diagnosis); Emery, 1911b: 5 (tribes key); Wheeler, W.M. 1922a: 51, 636 (diagnosis, tribes key); Morley, 1939: 114 (phylogeny); Smith, M.R. 1947c: 528 (U.S.A. diagnosis, genera); Brown, 1954b: 26 (phylogeny, notes); Eisner, 1957: 476 (proventriculus morphology); Gotwald, 1969: 43 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 37 (diagnosis); Kempf, 1972a: 263 (Neotropical, synoptic classification); Brown, 1975: 11 (revision of tribes and genera, diagnoses); Wheeler, G.C. & Wheeler, J. 1976: 46 (larvae, review & synthesis); Wheeler, G.C. & Wheeler, J. 1985: 261 (diagnosis); Ogata, 1987: 129 (Japan genera); Bolton, 1990a: 53 (abdominal morphology, diagnosis, synoptic classification, zoogeography); Bolton, 1990c: 1356 (diagnosis, morphology, phylogeny); Brandão, 1991: 390 (Neotropical fauna, synoptic classification, genera); Baroni Urbani, Bolton & Ward, 1992: 316 (phylogeny); Jaffe, 1993: 7 (Neotropical genera, synoptic classification); Latke, in Jaffe, 1993: 165 (Neotropical genera); Bolton, 1994: 18 (diagnosis, synoptic classification, key to genera); Bolton, 1995a: 1038 (census); Bolton, 1995b: 10 (catalogue); Hölldobler, Obermayer & Peeters, 1996: 158 (metatibial gland).

Tribe ACANTHOSTICHINI

Acanthostichii Emery, 1901a: 34. Type-genus: *Acanthostichus*.

Taxonomic history

Acanthostichini as tribe of Dorylinae: Emery, 1901a: 34 [Acanthostichii]; Emery, 1904: 116 [Acanthostichii].

Acanthostichini as subfamily of Dorylidae: Ashmead, 1905b: 382 [Acanthostichinae]; Ashmead, 1906: 28 [Acanthostichinae].

Acanthostichini as tribe of Ponerinae: Emery, 1911b: 12; Forel, 1917: 239; Gallardo, 1918: 6; Donisthorpe, 1943c: 619; Brown, 1975: 39; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Acanthostichini as tribe of Cerapachyinae: Wheeler, W.M. 1902c: 184; Wheeler, W.M. 1910d: 137 [subtribe of Cerapachysii]; Wheeler, W.M. 1922a: 640; Wheeler, G.C. & Wheeler, J. 1985: 256; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19. [*Taxonomy*, p. 33.]

Genus: *Acanthostichus*.

Tribe and genus references

Dalla Torre, 1893: 16 (catalogue); Emery, 1911b: 12 (diagnosis, catalogue); Emery, 1911b: 13 (*A. (Ctenopyga)* diagnosis, catalogue); Gallardo, 1918: 8 (Argentina species key); Wheeler, W.M. 1922a: 640 (genera, key); Wheeler, W.M. 1934d: 162 (species key); Kusnezov, 1962a: 125 (species key); Kempf, 1972a: 10 (Neotropical catalogue); Brown, 1975: 39 (diagnosis, review of tribe and genus); Brown, 1975: 42 (review of *Ctenopyga*); Bolton, 1990a: 58 (abdominal morphology); Brandão, 1991: 322 (catalogue); Bolton,

1995a: 1047 (census); Bolton, 1995b: 54 (catalogue); MacKay, 1996: 129 (diagnosis, all species revision, key).

Genus of Acanthostichini

Genus ACANTHOSTICHUS

Acanthostichus Mayr, 1887: 549. Type-species: *Typhlopone serratula*, by monotypy.

Taxonomic history

Acanthostichus in Ponerinae: Dalla Torre, 1893: 16.

Acanthostichus in Ponerinae, Cerapachyini: Forel, 1893a: 162; Forel, 1895a: 116; Wheeler, W.M. 1910d: 136 [subtribe Acanthostichini].

Acanthostichus in Dorylinae, Cerapachyini: Emery, 1895e: 765 [Cerapachyi].

Acanthostichus in Dorylinae, Acanthostichini: Emery, 1901a: 34.

Acanthostichus in Dorylidae, Acanthostichinae: Ashmead, 1905b: 382; Ashmead, 1906: 29.

Acanthostichus in Ponerinae, Acanthostichini: Emery, 1911b: 12; Forel, 1917: 239; Gallardo, 1918: 7; Donisthorpe, 1943c: 619; Brown, 1975: 41; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Acanthostichus in Cerapachyinae, Acanthostichini: Wheeler, W.M. 1902c: 184; Wheeler, W.M. 1922a: 640; Kempf, 1972a: 10; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19.

Junior synonym of ACANTHOSTICHUS

Ctenopyga Ashmead, 1906: 29. Type-species: *Ctenopyga townsendi* (junior synonym of *Acanthostichus texanus*), by original designation.

Taxonomic history

[*Ctenopyga* Ashmead, 1905b: 382 *nomen nudum*]

Ctenopyga in Dorylidae, Acanthostichinae: Ashmead, 1906: 29.

Ctenopyga in Ponerinae, Acanthostichini: Brown, 1975: 42; Hölldobler & Wilson, 1990: 10.

Ctenopyga in Cerapachyinae, Acanthostichini: Bolton, 1990a: 67.

Ctenopyga as subgenus of *Acanthostichus*: Emery, 1911b: 13; Forel, 1917: 239; Wheeler, W.M. 1922a: 640; Creighton, 1950a: 58.

Ctenopyga as genus: Ashmead, 1906: 29; Brown, 1975: 42; Smith, D.R. 1979: 1333; Hölldobler & Wilson, 1990: 10; Bolton, 1990a: 67; Bolton, 1990c: 1357.

Ctenopyga as junior synonym of *Acanthostichus*: Brown, 1973b: 179 [provisional]; Snelling, 1981: 389; Bolton, 1994: 19; MacKay, 1996: 132.

Genus references: see above.

Tribe CYLINDROMYRMECINI

Cylindromyrmex Mayr, 1901a: 34. Type-genus: *Cylindromyrmex*.

Taxonomic history

Cylindromyrmecini as tribe of Dorylinae: Emery, 1901a: 34 [*Cylindromyrmex*]; Emery, 1904: 116 [*Cylindromyrmecii*].

Cylindromyrmecini as tribe of Pachycondylinae: Ashmead, 1905b: 382 [*Cylindromyrmecini*].

Cylindromyrmecini as tribe of Ponerinae: Emery, 1911b: 14 [*Cylindromyrmecini*]; Arnold, 1915: 19 [*Cylindromyrmecini*]; Forel, 1917: 239 [*Cylindromyrmecini*]; Wheeler, W.M. 1922a: 640 [*Cylindromyrmecini*]; Brown, 1975: 36; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Cylindromyrmecini as tribe of Cerapachyinae: Wheeler, W.M. 1902c: 185 [*Cylindromyrmex*]; Wheeler, W.M. 1910d: 137 [*Cylindromyrmex*, subtribe of Cerapachysii]; Brown, 1954b: 27 (in text); Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19; De Andrade, 1998: 581. [*Taxonomy*, p. 33.]

Genus: *Cylindromyrmex*.

Tribe and genus references

Dalla Torre, 1893: 16 (catalogue); Emery, 1911b: 14 (diagnosis, catalogue); Arnold, 1915: 19 (diagnosis); Wheeler, W.M. 1922a: 640 (genera key); Wheeler, W.M. 1924a: 104 (all species key); Menozzi, 1931c: 194 (all species key); Wheeler, W.M. 1937: 444 (all species key); Kempf, 1972a: 91 (catalogue); Brown, 1975: 36 (diagnosis, review of tribe and genus, key); Bolton, 1990a: 59 (abdominal morphology); Bolton, 1995a: 1049 (census); Bolton, 1995b: 167 (catalogue); De Andrade, 1998: 581 (diagnosis, all species revision, key).

Genus of Cylindromyrmecini

Genus CYLINDROMYRMEX

Cylindromyrmex Mayr, 1870b: 967. Type-species: *Cylindromyrmex striatus*, by monotypy.

Taxonomic history

Cylindromyrmex in Ponerinae: Dalla Torre, 1893: 16.

Cylindromyrmex in Ponerinae, Cerapachyini: Forel, 1893a: 162; Forel, 1895a: 116; Wheeler, W.M. 1910d: 137 [subtribe Cylindromyrmecini].

Cylindromyrmex in Ponerinae, Ectatommini: Emery, 1895e: 767.

Cylindromyrmex in Ponerinae, Ponerini: Forel, 1899: 4.

Cylindromyrmex in Dorylinae, Cylindromyrmecini: Emery, 1901a: 34.

- Cylindromyrmex* in Pachycondyliinae, Cylindromyrmecini: Ashmead, 1905b: 382.
- Cylindromyrmex* in Ponerinae, Cylindromyrmecini: Emery, 1911b: 14; Forel, 1917: 239; Wheeler, W.M. 1922a: 640; Wheeler, W.M. 1924a: 104; Brown, 1975: 36; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.
- Cylindromyrmex* in Cerapachyinae, Cylindromyrmecini: Wheeler, W.M. 1902c: 185; Donisthorpe, 1943c: 636; Kempf, 1972a: 91; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19.
- Cylindromyrmex* as subgenus of *Cerapachys*: Forel, 1892i: 243.
- Cylindromyrmex* as genus: Mayr, 1870b: 967; Dalla Torre, 1893: 16; Wheeler, W.M. 1910d: 137.
- Junior synonyms of CYLINDROMYRMEX**
- Holcoponera* Cameron, 1891: 92. Type-species: *Holcoponera whympersi*, by monotypy.
- Taxonomic history**
- [Junior homonym of *Holcoponera* Mayr, 1887: 540 (Formicidae).]
- Holcoponera* Cameron as junior synonym of *Cylindromyrmex*: Forel, 1892d: 256; Dalla Torre, 1893: 16; Emery, 1911b: 14.
- Hypocylindromyrmex* Wheeler, W.M. 1924a: 106 [as subgenus of *Cylindromyrmex*]. Type-species: *Cylindromyrmex longiceps*, by original designation.
- Taxonomic history**
- Hypocylindromyrmex* as junior synonym of *Cylindromyrmex*: Brown, 1973b: 181 [provisional]; Brown, 1975: 36.
- Metacylindromyrmex* Wheeler, W.M. 1924a: 106 [as subgenus of *Cylindromyrmex*]. Type-species: *Cylindromyrmex godmani*, by original designation.
- Taxonomic history**
- Metacylindromyrmex* as junior synonym of *Cylindromyrmex*: Kempf, 1972a: 91; Brown, 1975: 36.
- Genus references:** see above.

Tribe CERAPACHYINI

Cerapachysii Forel, 1893a: 162. Type-genus: *Cerapachys*.

Taxonomic history

Cerapachyini as tribe of Ponerinae: Forel, 1893a: 162 [Cerapachysii]; Forel, 1900b: 52 [Cerapachii]; Forel, 1900c: 328 [Cerapachii]; Forel, 1901b: 139 [Cerapachii]; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 136 [Cerapachysii]; Emery, 1911b: 5; Wheeler, W.M. 1915e: 27; Arnold, 1915: 11; Forel, 1917: 239; Wheeler, W.M. 1918a: 215; Arnold, 1926: 191; Brown, 1975: 14; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Cerapachyini as tribe of Dorylinae: Emery, 1895e: 765 [Cerapachyi]; Emery, 1901a: 36 [Cerapachyi]; Emery, 1904: 116 [Cerapachyi].

Cerapachyini as tribe of Cerapachyinae: Wheeler, W.M. 1902c: 185 [Cerapachyi]; Wheeler, W.M. 1922a: 638; Wheeler, W.M. & Chapman, 1925: 50; Donisthorpe, 1943c: 620; Chapman & Capco, 1951: 17; Wheeler, G.C. & Wheeler, J. 1985: 256; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19. [*Taxonomy*, p. 33.]

Junior synonyms of CERAPACHYINI

Lioponerini Ashmead, 1905b: 382. Type-genus: *Lioponera* (junior synonym of *Cerapachys*).

Taxonomic history

Lioponerini as tribe of Pachycondyliinae: Ashmead, 1905b: 382.

Lioponerini as junior synonym of Cerapachyini: Emery, 1911b: 6; Brown, 1975: 19 (no statement of tribe synonymy but all taxa included under *Cerapachys*); Bolton, 1994: 19.

Eusphinctinae Clark, 1951: 15 (in key). Type-genus: *Eusphinctus* (junior synonym of *Sphinctomyrmex*).

Taxonomic history

Eusphinctinae as subfamily of Formicidae: Clark, 1951: 15.

Eusphinctinae as junior synonym of Cerapachyini: Bolton, 1990a: 66.

Genera: *Cerapachys*, *Simopone*, *Sphinctomyrmex*.

Tribe references

Emery, 1911b: 6 (diagnosis, genera key); Arnold, 1915: 11 (South Africa genera key); Forel, 1917: 239 (synoptic classification); Wheeler, W.M. 1918a: 224, 239 (Australia genera, key); Wheeler, W.M. 1922a: 639 (genera key); Borgmeier, 1923: 50 (Brazil catalogue); Wilson, 1959b: 39 (Melanesia fauna); Brown, 1975: 14 (diagnosis, genera key); Bolton, 1990a: 61 (abdominal morphology); Bolton, 1994: 19 (synoptic classification); Bolton, 1995a: 1038 (census); Bolton, 1995b: 10 (catalogue); Shattuck, 1999: 25, 60 (Australia, genera key, synopsis); Andersen, 2000: 33 (northern Australia, genera).

Genera of Cerapachyini

Genus CERAPACHYS

Cerapachys Smith, F. 1857: 74. Type-species: *Cerapachys antennatus*, by subsequent designation of Bingham, 1903: 28.

Taxonomic history

Cerapachys in Myrmicinae: Smith, F. 1857: 74 [Myrmicidae]; Smith, F. 1861: 47 [Myrmicidae]; Smith, F. 1871: 329 [Myrmicidae].

Cerapachys in Ponerinae: Dalla Torre, 1893: 17.

Cerapachys in Dorylinae, Cerapachyini: Emery, 1895e: 765; Emery, 1901a: 34.

Cerapachys in Ponerinae, Cerapachyini: Forel, 1893a: 162 (also misspelled *Orapachys*, same page); Forel, 1900c: 331; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 137; Emery, 1911b: 8; Arnold, 1915: 11; Forel, 1917: 239; Brown, 1975: 18; Snelling, 1981: 389; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Cerapachys in Cerapachyinae, Cerapachyini: Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 632; Chapman & Capco, 1951: 17; Kempf, 1972a: 76; Wheeler, G.C. & Wheeler, J. 1985: 256; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19.

Junior synonyms of CERAPACHYS

Syscia Roger, 1861a: 19. Type-species: *Syscia typhla*, by monotypy.

Taxonomic history

Syscia in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 15 [Poneridae]; Dalla Torre, 1893: 17.

Syscia in Dorylinae, Cerapachyini: Emery, 1895e: 765.

Syscia in Ponerinae, Cerapachyini: Forel, 1893a: 162; Forel, 1900c: 329; Ashmead, 1905b: 382.

Syscia as genus: Dalla Torre, 1893: 17; Forel, 1900c: 329; Bingham, 1903: 31.

Syscia as subgenus of *Cerapachys*: Wheeler, W.M. 1902c: 185; Emery, 1902b: 24; Wheeler, W.M. 1910d: 137; Emery, 1911b: 10; Forel, 1917: 239; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943d: 730.

Syscia as junior synonym of *Cerapachys*: Kempf, 1972a: 76; Brown, 1975: 18.

Ooceraea Roger, 1862a: 248. Type-species: *Ooceraea fragosa*, by monotypy.

Taxonomic history

Ooceraea in Myrmicinae: Mayr, 1865: 24 [Myrmicidae].

Ooceraea in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Ooceraea in Poneridae: Smith, F. 1871: 324.

Ooceraea in Ponerinae: Dalla Torre, 1893: 17.

Ooceraea in Ponerinae, Cerapachyini: Forel, 1893a: 162.

Ooceraea in Dorylinae, Cerapachyini: Emery, 1895e: 765; Emery, 1901a: 34.

Ooceraea in Ecitoninae, Ecitonini: Ashmead, 1905b: 381; Ashmead, 1906: 25.

Ooceraea as genus: Roger, 1862a: 248; Smith, F. 1871: 324; Dalla Torre, 1893: 17; Forel, 1900c: 329; Bingham, 1903: 31.

Ooceraea as subgenus of *Cerapachys*: Emery, 1902b: 24; Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1910d: 137; Emery, 1911b: 10; Forel, 1917: 239; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 678.

Ooceraea as junior synonym of *Cerapachys*: Brown, 1973b: 183 [provisional]; Brown, 1975: 19.

Lioponera Mayr, 1879: 666. Type-species: *Lioponera longitarsus*, by monotypy.

Taxonomic history

Lioponera in Ponerinae: Dalla Torre, 1893: 17.

Lioponera in Pachycondylinae, Lioponerini: Ashmead, 1905b: 382.

Lioponera in Ponerinae, Cerapachyini: Forel, 1893a: 162; Forel, 1900c: 329; Wheeler, W.M. 1910d: 137; Emery, 1911b: 11; Forel, 1917: 239.

Lioponera in Dorylinae, Cerapachyini: Emery, 1895e: 765.

Lioponera in Cerapachyinae, Cerapachyini: Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 657.

Lioponera as subgenus of *Cerapachys*: Forel, 1892i: 244.

Lioponera as genus: Mayr, 1879: 666; Dalla Torre, 1893: 17; Forel, 1900c: 329; Bingham, 1903: 26; Emery, 1911b: 11; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 657.

Lioponera as junior synonym of *Cerapachys*: Brown, 1975: 19.

Parasyscia Emery, in André, 1882c: 235. Type-species: *Parasyscia piochardi*, by monotypy.

Taxonomic history

Parasyscia in Ponerinae: Dalla Torre, 1893: 17.

Parasyscia in Dorylinae, Cerapachyini: Emery, 1895e: 765.

Parasyscia in Ponerinae, Cerapachyini: Forel, 1893a: 162 [Cerapachysii]; Ashmead, 1905b: 382.

Parasyscia as genus: Dalla Torre, 1893: 17.

Parasyscia as subgenus of *Cerapachys*: Forel, 1892i: 243; Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1910d: 137; Emery, 1911b: 9; Forel, 1917: 239; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 681; Creighton, 1950a: 57.

Parasyscia as junior synonym of *Cerapachys*: Kempf, 1972a: 76; Brown, 1975: 18.

Phyracaces Emery, 1902b: 23. Type-species: *Cerapachys mayri*, by original designation.

Taxonomic history

Phyracaces in Ponerinae, Cerapachyini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 137; Emery, 1911b: 10; Arnold, 1915: 17; Forel, 1917: 239.

Phyracaces in Cerapachyinae, Cerapachyini: Wheeler, W.M. 1902c: 185; Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 683.

Phyracaces as junior synonym of *Cerapachys*: Brown, 1973b: 183 [provisional]; Brown, 1975: 19.

Cysias Emery, 1902b: 24 [as subgenus of *Cerapachys*]. Type-species: *Ooceraea papuana*, by original designation.

Taxonomic history

Cysias in Ponerinae, Cerapachyini: Ashmead, 1905b: 382.

Cysias as genus: Ashmead, 1905b: 382.

Cysias as subgenus of *Cerapachys*: Emery, 1902b: 24; Wheeler, W.M. 1910d: 137; Donisthorpe, 1943c: 637.

Cysias as junior synonym of *Syscia*: Emery, 1911b: 10.

Ceratopachys Schulz, W.A. 1906: 155, unjustified emendation of *Cerapachys*.

Taxonomic history

Ceratopachys as junior synonym of *Cerapachys*: Wheeler, W.M. 1922a: 755.

**Procerapachys* Wheeler, W.M. 1915e: 27. Type-species: **Procerapachys annosus*, by original designation.

Taxonomic history

**Procerapachys* in Ponerinae, Cerapachyini: Wheeler, W.M. 1915h: 27; Dlussky & Fedoseeva, 1988: 79.

**Procerapachys* in Cerapachyinae, Cerapachyini: Donisthorpe, 1943c: 686.

**Procerapachys* as genus: Dlussky & Fedoseeva, 1988: 79 (anachronism).

**Procerapachys* as junior synonym of *Cerapachys*: Brown, 1975: 19; Bolton, 1995b: 43.

Chrysapace Crawley, 1924: 380. Type-species: *Chrysapace jacobsoni* (junior secondary homonym in *Cerapachys*, replaced by *Cerapachys crawleyi*), by monotypy.

Taxonomic history

Chrysapace in Ponerinae: Crawley, 1924: 380.

Chrysapace in Cerapachyinae, Cerapachyini: Donisthorpe, 1943c: 633.

Chrysapace as junior synonym of *Cerapachys*: Brown, 1975: 19.

Neophracaces Clark, 1941: 76. Type-species: *Phyracaces clarus*, by original designation.

Taxonomic history

Neophracaces in Cerapachyinae: Clark, 1941: 76.

Neophracaces as junior synonym of *Cerapachys*: Brown, 1973b: 183 [provisional]; Brown, 1975: 19.

Yunodorylus Xu, 2000b: 297. Type-species: *Yunodorylus sexspinus*, by original designation. Syn. n. [Appendix 1.4, p. 268.]

Taxonomic history

Yunodorylus in Dorylinae: Xu, 2000b: 297.

Genus references

Roger, 1863b: 21, 25 (catalogue); Mayr, 1863: 403, 439, 455 (catalogue); Mayr, 1865: 15, 24 (*Syscia*, *Ooceraea* diagnoses); André, 1882c: 236 (Europe & Algeria species); Dalla Torre, 1893: 17 (*Lioponera*, *Cerapachys*, *Parasyscia*, *Ooceraea*, *Syscia* catalogues); Forel, 1900c: 331 (India & Sri Lanka species key); Bingham, 1903: 27, 28 (India, Sri Lanka & Burma *Lioponera*, *Cerapachys* species keys); Emery, 1911b: 8 (diagnosis, subgenera key, catalogue); Emery, 1911b: 9 (*C. (Parasyscia)* diagnosis, catalogue); Emery, 1911b: 10 (*C. (Ooceraea)* & *C. (Syscia)* diagnoses, catalogues); Emery, 1911b: 10 (*Phyracaces* diagnosis, catalogue); Emery, 1911b: 11 (*Lioponera* diagnosis, catalogue); Arnold, 1915: 11 (diagnosis, South Africa species key); Wheeler, W.M. 1918a: 239 (Australia *Phyracaces* species key); Mann, 1921: 408 (Fiji species key); Wheeler, W.M. 1922a: 52, 53, 639 (*Cerapachys* & *Phyracaces* diagnoses, subgenera key); Wheeler, W.M. 1924c: 224 (*Chrysapace*, comments); Arnold, 1926: 193 (South Africa species, revised key); Donisthorpe, 1939: 253 (*Lioponera* diagnosis); Chapman & Capco, 1951: 17, 21, 22 (Asia *Cerapachys*, *Lioponera*, *Phyracaces* checklists); Wilson, 1959b: 44, 52, 55, 56 (Melanesia, Fiji Is, New Guinea & New Caledonia species keys); Kempf, 1972a: 76 (Neotropical catalogue); Brown, 1975: 18, 26 (diagnosis, keys); Smith, D.R. 1979: 1333 (North America catalogue); Taylor & Brown, D.R. 1985: 23 (Australia catalogue); Taylor, 1987a: 16 (Australia, New Caledonia checklist); Terayama, Kubota, Sakai & Kawazoe, 1988: 35 (Taiwan species key); Morisita, Kubota, Onoyama, *et al.*, 1989: 30 (Japan species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 142 (catalogue); Wu, J. & Wang, 1995: 47 (China species key); Collingwood & Agosti, 1996: 312 (Saudi Arabia species key); Terayama, 1996: 18 (Japan species key); Shattuck, 1999: 60 (Australia synopsis); Imai, Kihara, Kondoh *et al.* 2003: 210 (Japan species).

Genus SIMOPONE

Simopone Forel, 1891b: 139. Type-species: *Simopone grandidieri*, by monotypy.

Taxonomic history

Simopone in Ponerinae: Dalla Torre, 1893: 17.

Simopone in Dorylinae, Cerapachyini: Emery, 1895e: 765.

Simopone in Dorylinae, Cyliindromyrmecini: Emery, 1901a: 34.

Simopone in Ponerinae, Leptogenyini: Ashmead, 1905b: 382.

Simopone in Ponerinae, Cyliindromyrmecini: Emery, 1911b: 15; Arnold, 1915: 20; Forel, 1917: 239; Wheeler, W.M. 1922a: 640; Donisthorpe, 1943d: 726; Chapman & Capco, 1951: 25.

Simopone in Ponerinae, Cerapachyini: Forel, 1893a: 162; Wheeler, W.M. 1910d: 137 [subtribe Cyliindromyrmecini]; Brown, 1975: 18; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Simopone in Cerapachyinae, Cerapachyini: Wheeler, W.M. 1902c: 185; Bolton, 1990a: 67; Bolton, 1990c: 1357; Bolton, 1994: 19.

Simopone as subgenus of *Cerapachys*: Forel, 1892i: 243.

Simopone as genus: Forel, 1891b: 139; Dalla Torre, 1893: 17; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 137; Emery, 1911b: 15; Donisthorpe, 1943d: 726; Brown, 1975: 35.

Genus references

Dalla Torre, 1893: 17 (catalogue); Emery, 1911b: 15 (diagnosis, catalogue); Arnold, 1915: 20 (diagnosis); Wheeler, W.M. 1922a: 757, 1005 (Afrotropical, Malagasy catalogues); Chapman & Capco, 1951: 25 (Asia checklist); Brown, 1975: 35 (diagnosis, Afrotropical species key); Radchenko, 1993: 47 (Indo-Australian

species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 383 (catalogue).

Genus *SPHINCTOMYRMEX*

Sphinctomyrmex Mayr, 1866b: 895. Type-species: *Sphinctomyrmex stali*, by monotypy.

Taxonomic history

Sphinctomyrmex in Dorylidae: Mayr, 1866b: 895; Forel, 1878: 365 (footnote).

Sphinctomyrmex Ponerinae: Dalla Torre, 1893: 16.

Sphinctomyrmex in Dorylinae, Cerapachyini: Emery, 1895e: 765; Emery, 1901a: 34.

Shinctomyrmex in Dorylinae, Dorylini: Ashmead, 1905b: 381; Ashmead, 1906: 27.

Sphinctomyrmex in Ponerinae, Cerapachyini: Forel, 1893a: 162; Forel, 1895a: 116; Forel, 1900c: 328; Wheeler, W.M. 1910d: 137; Emery, 1911b: 6; Forel, 1917: 239; Brown, 1975: 18; Snelling, 1981: 389; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Sphinctomyrmex in Cerapachyinae, Cerapachyini: Wheeler, 1902d: 185; Wheeler, W.M. 1922a: 638; Donisthorpe, 1943d: 727; Kempf, 1972a: 241; Bolton, 1990a: 67; Bolton, 1990c: 1357; Jaffe, 1993: 9; Bolton, 1994: 19.

Junior synonyms of *SPHINCTOMYRMEX*

Eusphinctus Emery, 1893a: cclxxv. Type-species: *Eusphinctus furcatus*, by monotypy.

Taxonomic history

Eusphinctus in Cerapachyinae, Cerapachyini: Wheeler, W.M. 1922a: 639; Donisthorpe, 1943c: 645.

Eusphinctus as subgenus of *Sphinctomyrmex*: Emery, 1895f: 456; Forel, 1900c: 328; Wheeler, W.M. 1910d: 137; Emery, 1911b: 7; Forel, 1917: 239.

Eusphinctus as genus: Wheeler, W.M. 1918a: 219; Wheeler, W.M. 1922a: 639.

Eusphinctus as junior synonym of *Sphinctomyrmex*: Brown, 1973b: 180 [provisional]; Brown, 1975: 31.

Nothosphinctus Wheeler, W.M. 1918a: 219 [as subgenus of *Eusphinctus*]. Type-species: *Sphinctomyrmex froggatti*, by subsequent designation of Donisthorpe, 1943c: 675.

Taxonomic history

Nothosphinctus as subgenus of *Eusphinctus*: Wheeler, W.M. 1918a: 219; Wheeler, W.M. 1922a: 639.

Nothosphinctus as junior synonym of *Sphinctomyrmex*: Brown, 1973b: 183 [provisional]; Brown, 1975: 31.

Zasphinctus Wheeler, W.M. 1918a: 219 [as subgenus of *Eusphinctus*]. Type-species: *Sphinctomyrmex turneri*, by monotypy.

Taxonomic history

Zasphinctus as subgenus of *Eusphinctus*: Wheeler, W.M. 1918a: 219; Wheeler, W.M. 1922a: 639.

Zasphinctus as junior synonym of *Sphinctomyrmex*: Brown, 1973b: 185 [provisional]; Brown, 1975: 31.

Aethiopopone Santschi, 1930a: 49. Type-species: *Sphinctomyrmex rufiventris*, by monotypy.

Taxonomic history

Aethiopopone in Cerapachyinae, Cerapachyini: Donisthorpe, 1943c: 620.

Aethiopopone as junior synonym of *Sphinctomyrmex*: Bolton, 1973a: 341; Brown, 1975: 31.

Genus references

Dalla Torre, 1893: 16 (catalogue); Bingham, 1903: 25 (India, Sri Lanka & Burma species key); Emery, 1911b: 6 (diagnosis, catalogue); Emery, 1911b: 7 (*S. (Eusphinctus)* diagnosis, catalogue); Wheeler, W.M. 1918a: 224 (Australia *Eusphinctus* species key); Wheeler, W.M. 1922a: 639 (*Eusphinctus* subgenera key); Wheeler, W.M. 1922a: 755 (Afrotropical catalogue); Chapman & Capco, 1951: 21 (Asia checklist); Kempf, 1972a: 241 (Neotropical catalogue); Brown, 1975: 31 (diagnosis, key); Taylor & Brown, D.R. 1985: 49 (Australia catalogue); Taylor, 1987a: 73 (Australia, New Caledonia checklist); Bolton, 1995a: 1052 (census); Bolton, 1995b: 392 (catalogue); Shattuck, 1999: 62 (Australia synopsis).

SUBFAMILY ECITONINAE

Subfamily ECITONINAE

Ecitonii Forel, 1893a: 163. Type-genus: *Eciton*.

Taxonomic history

Ecitoninae as subfamily of Dorylidae: Ashmead, 1905b: 381; Ashmead, 1906: 23.

Ecitoninae as subfamily of Formicidae: Brown, 1973b: 166; Snelling, 1981: 392; Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 11; all subsequent authors. [*Taxonomy*, p. 34.]

Tribes: Cheliomyrmecini, Ecitonini.

Subfamily and tribe Ecitonini references

Emery, 1895e: 765 (diagnosis); Ashmead, 1906: 23, 24 (tribes & genera keys); Emery, 1910b: 15 (diagnosis, genera key, catalogue); Wheeler, W.M. 1910d: 138, 558 (diagnosis, North America genera); Forel, 1917: 240 (synoptic classification); Gallardo, 1920: 312 (Argentina genera, key); Wheeler, W.M. 1922a: 634 (genera key); Borgmeier, 1923: 37 (Brazil catalogue); Smith, M.R. 1943b: 290 (U.S.A. males); Creighton, 1950a: 61 (North America); Borgmeier, 1955: 51, 57 (revision of subfamily, tribes key); Borgmeier, 1955: 79 (revision of tribe, genera key); Brown, 1973b: 166 (genera, distribution); Watkins, 1976: 6 (genera keys); Wheeler, G.C. & Wheeler, J. 1976: 46 (larvae, review & synthesis); Snelling, 1981: 392 (synoptic classification); Gotwald & Burdette, 1981: 78 (phylogeny); Watkins, 1982: 210 (Mexico genera, key); Gotwald, 1982: 167 (genera key); Baroni Urbani, 1984: 74 (genera key); Wheeler, G.C. & Wheeler, J. 1986b: 17 (U.S.A., Nevada); Bolton, 1990c: 1357 (diagnosis, morphology, phylogeny); Brandão, 1991: 392 (Neotropical fauna, synoptic classification); Baroni Urbani, Bolton & Ward, 1992: 317

(phylogeny); Jaffe, 1993: 13 (Neotropical genera, synoptic classification); Lattke, in Jaffe, 1993: 149 (genera key); Bolton, 1994: 38 (diagnosis, synoptic classification, genera key); Bolton, 1995a: 1039 (census); Bolton, 1995b: 11 (catalogue); Hölldobler, Obermayer & Peeters, 1996: 158 (metatibial gland); Palacio, 1999: 143 (Colombia genera, key).

Tribe CHELIOMYRMECINI

Cheliomyrmecini Wheeler, W.M. 1921b: 319. Type-genus: *Cheliomyrmex*.

Taxonomic history

Cheliomyrmecini as tribe of Dorylinae: Wheeler, W.M. 1921b: 319 [Cheliomyrmecini]; Borgmeier, 1955: 57 [Cheliomyrmecini]; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 79.
Cheliomyrmecini as tribe of Ecitoninae: Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 11; Jaffe 1993: 12; Bolton, 1994: 39. [*Taxonomy*, p. 35.]

Genus: *Cheliomyrmex*.

Tribe and genus references

Dalla Torre, 1893: 7 (catalogue); Emery, 1910b: 16 (diagnosis, catalogue); Borgmeier, 1955: 59, 62 (diagnosis, all species revision, key); Gotwald, 1971: 161 (phylogeny); Kempf, 1972a: 76 (Neotropical catalogue); Watkins, 1976: 6 (all species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 145 (catalogue); Palacio, 1999: 148 (Colombia species key).

Genus of Cheliomyrmecini

Genus CHELIOMYRMEX

Cheliomyrmex Mayr, 1870b: 968. Type-species: *Cheliomyrmex nortoni* (junior synonym of *Cheliomyrmex morosus*), by monotypy.

Taxonomic history

Cheliomyrmex in Dorylinae: Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 7.
Cheliomyrmex in Dorylinae, Dorylini: Forel, 1893a: 163; Ashmead, 1905b: 381; Ashmead, 1906: 27.
Cheliomyrmex in Dorylinae, Ecitonini: Emery, 1895e: 765 [Ecitonii]; Emery, 1910b: 16 [Ecitini]; Wheeler, W.M. 1910d: 138; Forel, 1917: 240; Wheeler, W.M. 1922a: 635; Donisthorpe, 1943c: 633.
Cheliomyrmex in Dorylinae, Cheliomyrmecini: Wheeler, W.M. 1921b: 319; Borgmeier, 1955: 58; Kempf, 1972a: 76; Dlussky & Fedoseeva, 1988: 79.
Cheliomyrmex in Ecitoninae: Brown, 1973b: 166; Snelling, 1981: 392.
Cheliomyrmex in Ecitoninae, Cheliomyrmecini: Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 11; Jaffe, 1993: 13; Bolton, 1994: 39.

Genus references: see above.

Tribe ECITONINI

Ecitonii Forel, 1893a: 163. Type-genus: *Eciton*.

Taxonomic history

Ecitonini as tribe of Dorylinae: Forel, 1893a: 163 [Ecitonii]; Emery, 1895e: 765 [Ecitonii]; Forel, 1901a: 464 [Ecitonii]; Emery, 1901a: 36 [Ecitii]; Emery, 1904: 116 [Ecitii]; Wheeler, W.M. 1910d: 138 [Ecitonii]; Emery, 1910b: 15 [Ecitini]; Arnold, 1915: 113 [Ecitini]; Forel, 1917: 240 [Ecitini]; Gallardo, 1920: 309 [Ecitini]; Wheeler, W.M. 1922a: 633; Donisthorpe, 1943c: 618 [Ecitini]; Borgmeier, 1955: 77; Watkins, 1976: 6; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 79.
Ecitonini as tribe of Ecitoninae: Ashmead, 1905b: 381; Ashmead, 1906: 24; Bolton, 1990c: 1357; Jaffe 1993: 12; Bolton, 1994: 39. [*Taxonomy*, p. 35.]

Genera: *Eciton*, *Labidus*, *Neivamyrmex*, *Nomamyrmex*.

Tribe references: see above

Genera of Ecitonini

Genus ECITON

Eciton Latreille, 1804: 179. Type-species: *Formica hamata*, by subsequent designation of Shuckard, in Swainson & Shuckard, 1840: 173.

Taxonomic history

Eciton in Myrmicites: Lepeletier de Saint-Fargeau, 1835: 172.
Eciton in Poneridae, Myrmicidae: Smith, F. 1858b: 148.
Eciton in Myrmicinae: Mayr, 1865: 17 [Myrmicidae]; Cresson, 1887: 259 [Myrmicidae].
Eciton in Dorylinae: Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 1; Forel, 1895a: 118; Forel, 1899: 22.
Eciton in Dorylinae, Ecitonini: Forel, 1893a: 163; Emery, 1895e: 765 [Ecitonii]; Emery, 1910b: 17 [Ecitini]; Wheeler, W.M. 1910d: 138; Forel, 1917: 240; Gallardo, 1920: 312; Wheeler, W.M. 1922a: 635; Borgmeier, 1923: 37; Donisthorpe, 1943c: 641; Borgmeier, 1955: 79; Kempf, 1972a: 101; Dlussky & Fedoseeva, 1988: 79.
Eciton in Ecitoninae: Brown, 1973b: 166; Snelling, 1981: 392.
Eciton in Ecitoninae, Ecitonini: Ashmead, 1905b: 381; Ashmead, 1906: 24; Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 12; Jaffe, 1993: 13; Bolton, 1994: 39.

Junior synonyms of *ECITON*

Ancylognathus Lund, 1831a: 121, 135. Type-species: *Ancylognathus lugubris*, nomen nudum. [*Ancylognathus* material referred to *Eciton*: Smith, F. 1855: 160; all subsequent authors.]

Camptognatha Gray, G.R. 1832: 516. Type-species: *Camptognatha testacea* (junior synonym of *Eciton hamatum*), by monotypy.

Taxonomic history

Camptognatha as junior synonym of *Eciton*: Smith, F. 1855: 160; Roger, 1863b: 36; Dalla Torre, 1893: 1; Emery, 1910b: 19; Borgmeier, 1955: 162.

Mayromyrmex Ashmead, 1905b: 381. Type-species: *Labidus fargeavii* (junior synonym of *Eciton quadriglume*), by original designation.

Taxonomic history

Mayromyrmex in Ecitoninae, Ecitonini: Ashmead, 1905b: 381; Ashmead, 1906: 24.

Mayromyrmex as junior synonym of *Eciton*: Emery, 1906a: 718; Emery, 1910b: 19; Borgmeier, 1955: 162.

Holopone Santschi, 1925b: 11 [as subgenus of *Eciton*]. Type-species: *Eciton rapax*, by original designation.

Taxonomic history

Holopone as junior synonym of *Eciton*: Borgmeier, 1936: 55; Borgmeier, 1955: 162.

Genus references

Smith, F. 1858b: 148 (diagnosis); Roger, 1863b: 36 (catalogue); Mayr, 1863: 408 (catalogue); Mayr, 1865: 17, 77 (diagnosis, all species key); Mayr, 1886a: 115 (all species key); Dalla Torre, 1893: 1 (catalogue); Emery, 1900a: 176 (all species, males key); Emery, 1910b: 17 (diagnosis, subgenera key, catalogue); Gallardo, 1920: 312 (Argentina species key); Borgmeier, 1955: 162, 175 (diagnosis, all species revision, key); Kempf, 1972a: 101 (Neotropical catalogue); Watkins, 1976: 9 (all species key); Watkins, 1982: 209 (Mexico species key); Billen, 1986: 170 (Dufour's gland); Brandão, 1991: 341 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 184 (catalogue); Palacio, 1999: 151 (Colombia species key).

Genus *LABIDUS*

Labidus Jurine, 1807: 282. Type-species: *Labidus latreillii* (junior synonym of *Labidus coecus*), by monotypy.

Taxonomic history

Labidus in Dorylidae: Leach, 1815: 147 [Dorylida]; Haliday, 1836: 331; Shuckard, 1840: 196; Smith, F. 1859b: 1; Cresson, 1887: 259.

Labidus in Dorylinae: Mayr, 1865: 16 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae].

Labidus in Dorylinae, Ecitonini: Emery, 1910b: 21 [Ecitini]; Forel, 1917: 240; Donisthorpe, 1943c: 654; Borgmeier, 1955: 79; Kempf, 1972a: 126; Dlussky & Fedoseeva, 1988: 79.

Labidus in Ecitoninae: Brown, 1973b: 166; Snelling, 1981: 392.

Labidus in Ecitoninae, Ecitonini: Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 12; Jaffe, 1993: 13; Bolton, 1994: 39.

Labidus as junior synonym of *Eciton*: Dalla Torre, 1893: 1.

Labidus as subgenus of *Eciton*: Emery, 1910b: 21; Forel, 1917: 240; Gallardo, 1920: 312; Wheeler, W.M. 1922a: 635; Borgmeier, 1923: 41; Donisthorpe, 1943c: 654; Creighton, 1950a: 61; Smith, M.R. 1951: 779; Kusnezov, 1956: 9 (anachronism).

Labidus as genus: Jurine, 1807: 282; Shuckard, 1840: 196; Borgmeier, 1953: 4; Borgmeier, 1955: 80; Smith, M.R. 1958: 108; all subsequent authors.

Junior synonyms of *LABIDUS*

Nycteresia Roger, 1861a: 21. Type-species: *Formica coeca*, by monotypy.

Taxonomic history

Nycteresia in Ponerinae: Mayr, 1862: 714 [Poneridae].

Nycteresia as junior synonym of *Eciton*: Mayr, 1865: 76; Dalla Torre, 1893: 1.

Nycteresia as junior synonym of *Labidus*: Emery, 1910b: 21; Donisthorpe, 1943c: 675; Borgmeier, 1955: 80.

Pseudodichthadia André, 1885: 838. Type-species: *Pseudodichthadia incerta* (junior synonym of *Labidus coecus*), by monotypy.

Taxonomic history

Pseudodichthadia in Dorylidae: André, 1885: 838.

Pseudodichthadia in Dorylinae: Dalla Torre, 1893: 7.

Pseudodichthadia in Dorylinae, Ecitonini: Forel, 1893a: 163; Emery, 1895e: 765 [Ecitonii].

Pseudodichthadia as junior synonym of *Eciton*: André, in Forel, 1899: 160 (footnote).

Pseudodichthadia as junior synonym of *Labidus*: Emery, 1910b: 21; Borgmeier, 1955: 80.

Genus references

Roger, 1863b: 21, 41 (catalogue); Mayr, 1863: 424, 436 (catalogue); Mayr, 1865: 16 (diagnosis); Cresson, 1887: 259 (U.S.A. catalogue); Emery, 1910b: 21 (diagnosis, catalogue); Gallardo, 1920: 312 (Argentina species key); Creighton, 1950a: 62 (North America species key); Borgmeier, 1955: 80, 84 (diagnosis, all species revision, key); Kempf, 1972a: 126 (Neotropical catalogue); Watkins, 1976: 8 (all species key); Smith, D.R. 1979: 1327 (North America catalogue); Watkins, 1982: 209 (Mexico species key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 219 (catalogue); Palacio, 1999: 153 (Colombia species key).

Genus NEIVAMYRMEX

Neivamyrmex Borgmeier, 1940: 606 [as subgenus of *Eciton*].

Taxonomic history

[Replacement name for *Acamatus* Emery, 1894a: 181; junior homonym of *Acamatus* Schoenherr, 1833: 20 (Coleoptera).]

Neivamyrmex in Dorylinae, Ecitonini: Donisthorpe, 1943c: 673; Borgmeier, 1955: 79; Kempf, 1972a: 152; Dlussky & Fedoseeva, 1988: 79.

Neivamyrmex in Ecitoninae: Brown, 1973b: 166; Snelling, 1981: 392.

Neivamyrmex in Ecitoninae, Ecitonini: Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 12; Jaffe, 1993: 13; Bolton, 1994: 39.

Neivamyrmex as subgenus of *Eciton*: Creighton, 1950a: 64; Kusnezov, 1956: 8 (anachronism).

Neivamyrmex as genus: Borgmeier, 1950b: 624; Borgmeier, 1955: 277; Smith, M.R. 1958: 108; all subsequent authors except the above entry.

Homonym replaced by NEIVAMYRMEX

Acamatus Emery, 1894a: 181 [as subgenus of *Eciton*]. Type-species: *Eciton (Acamatus) schmitti* (junior synonym of *Neivamyrmex nigrescens*), by subsequent designation of Wheeler, W.M. 1911b: 157.

Taxonomic history

[Junior homonym of *Acamatus* Schoenherr, 1833: 20 (Coleoptera).]

Acamatus in Ecitoninae, Ecitonini: Ashmead, 1905b: 381; Ashmead, 1906: 24.

Acamatus in Dorylinae, Ecitonini: Emery, 1910b: 23 [Ecitini].

Acamatus as genus: Ashmead, 1905b: 381; Ashmead, 1906: 24.

Acamatus as subgenus of *Eciton*: Emery, 1894a: 181; Emery, 1895e: 765; Emery, 1910b: 23; Wheeler, W.M. 1910d: 138; Forel, 1917: 240; Gallardo, 1920: 345; Wheeler, W.M. 1922a: 635; Borgmeier, 1923: 44; Donisthorpe, 1943c: 618 (anachronism).

Junior synonym of NEIVAMYRMEX

Woitkowskia Enzmann, E.V. 1952: 443. Type-species: *Woitkowskia connectens* (junior synonym of *Neivamyrmex walkeri*), by original designation.

Taxonomic history

Woitkowskia as junior synonym of *Neivamyrmex*: Borgmeier, 1955: 277.

Genus references

Emery, 1894a: 183 (species key); Emery, 1910b: 23 (diagnosis, catalogue); Gallardo, 1920: 348 (Argentina species key); Smith, M.R. 1942: 542 (U.S.A. species key); Buren, 1944: 280 (U.S.A., Iowa species key); Creighton, 1950a: 66 (North America species key); Borgmeier, 1955: 277, 290 (diagnosis, all species revision, key); Watkins, 1971: 93 (U.S.A. species key); Kempf, 1972a: 152 (Neotropical catalogue); Watkins, 1972: 348 (U.S.A. species key); Watkins, 1976: 11 (all species key); Smith, D.R. 1979: 1329 (North America catalogue); Watkins, 1982: 210 (Mexico species key); Watkins, 1985: 481 (U.S.A. species key); Wheeler, G.C. & Wheeler, J. 1986b: 19 (U.S.A., Nevada species key); Brandão, 1991: 359 (Neotropical catalogue); Bolton, 1995a: 1051 (census); Bolton, 1995b: 287 (catalogue); Ward, 1999a: 90 (modification of Watkins, 1985 key); Palacio, 1999: 154 (Colombia species key).

Genus NOMAMYRMEX

Nomamyrmex Borgmeier, 1936: 55 [as subgenus of *Eciton*]. Type-species: *Eciton crassicornis*, by original designation.

Taxonomic history

Nomamyrmex in Dorylinae, Ecitonini: Donisthorpe, 1943c: 674; Borgmeier, 1955: 79; Kempf, 1972a: 164; Dlussky & Fedoseeva, 1988: 79.

Nomamyrmex in Ecitoninae: Brown, 1973b: 166; Snelling, 1981: 392.

Nomamyrmex in Ecitoninae, Ecitonini: Bolton, 1990c: 1357; Hölldobler & Wilson, 1990: 12; Jaffe, 1993: 13; Bolton, 1994: 39.

Nomamyrmex as subgenus of *Eciton*: Borgmeier, 1936: 55; Kusnezov, 1956: 9 (anachronism).

Nomamyrmex as genus: Borgmeier, 1953: 4; Borgmeier, 1955: 135; Smith, M.R. 1958: 108; all subsequent authors except the entry above.

Genus references

Borgmeier, 1955: 135 (diagnosis, all species revision, key); Kempf, 1972a: 164 (catalogue); Watkins, 1976: 7 (all species key); Watkins, 1977: 207 (all species key); Smith, D.R. 1979: 1329 (North America catalogue); Watkins, 1982: 215 (Mexico species key); Brandão, 1991: 360 (catalogue); Bolton, 1995a: 1051 (census); Bolton, 1995b: 292 (catalogue); Palacio, 1999: 161 (Colombia species key).

SUBFAMILY LEPTANILLOIDINAE**Subfamily LEPTANILLOIDINAE**

Leptanilloidinae Bolton, in Baroni Urbani, Bolton & Ward, 1992: 317. Type-genus: *Leptanilloides*.

Taxonomic history

Leptanilloidinae as subfamily of Formicidae: Bolton, in Baroni Urbani, Bolton & Ward, 1992: 317; Bolton, 1994: 71; Brandão, Diniz, Agosti & Delabie, 1999: 17. [*Taxonomy*, p. 35.]

Tribe: Leptanilloidini.

Tribe LEPTANILLOIDINI

Leptanilloidini Bolton, in Baroni Urbani, Bolton & Ward, 1992: 317. Type-genus: *Leptanilloides*. See references above.

Genera: *Asphinctanilloides*, *Leptanilloides*.

Subfamily and tribe references

Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 71 (diagnosis, synoptic classification); Bolton, 1995a: 1040 (census); Bolton, 1995b: 12 (catalogue); Brandão, Diniz, Agosti & Delabie, 1999: 17 (diagnosis, genera revision, phylogeny, keys).

Genera of Leptanilloidini**Genus ASPHINCTANILLOIDES**

Asphinctanilloides Brandão, Diniz, Agosti & Delabie, 1999: 30. Type-species: *Asphinctanilloides anae*, by original designation.

Taxonomic history

Asphinctanilloides in Leptanilloidinae: Brandão, Diniz, Agosti & Delabie, 1999: 30.

Genus references

Brandão, Diniz, Agosti & Delabie, 1999: 30 (all species key).

Genus LEPTANILLOIDES

Leptanilloides Mann, 1923: 13. Type-species: *Leptanilloides biconstricta*, by original designation.

Taxonomic history

Leptanilloides in Dorylinae: Mann, 1923: 13.

Leptanilloides in Dorylinae, Ecitonini: Donisthorpe, 1943c: 656.

Leptanilloides incertae sedis in Formicidae: Borgmeier, 1955: 653; Wheeler, G.C. & Wheeler, J. 1985: 259.

Leptanilloides incertae sedis in Dorylinae: Kempf, 1972a: 129.

Leptanilloides in Ecitoninae: Brown, 1973b: 166.

Leptanilloides in Ponerinae, Cerapachyini: Brown, 1975: 18; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10.

Leptanilloides in Cerapachyinae, Cerapachyini: Bolton, 1990a: 61; Bolton, 1990c: 1357; Jaffe, 1993: 9.

Leptanilloides in Leptanilloidinae: Bolton, in Baroni Urbani, Bolton & Ward, 1992: 317; Bolton, 1994: 71; Brandão, Diniz, Agosti & Delabie, 1999: 23.

Genus references

Borgmeier, 1955: 652 (diagnosis); Kempf, 1972a: 129 (catalogue); Brown, 1975: 34 (notes); Bolton, 1990a: 61 (abdominal morphology); Bolton, 1995a: 1050 (census); Bolton, 1995b: 229 (catalogue); Brandão, Diniz, Agosti & Delabie, 1999: 23 (diagnosis, all species revision, key).

SUBFAMILY AENICTINAE**Subfamily AENICTINAE**

Aenictii Emery, 1901a: 36. Type-genus: *Aenictus*.

Taxonomic history

Aenictinae as subfamily of Formicidae: Bolton, 1990c: 1358; Baroni Urbani, Bolton & Ward, 1992: 315; Bolton, 1994: 12; Wu, J. & Wang, 1995: 49. [*Taxonomy*, p. 36.]

Tribe: Aenictini.

Tribe AENICTINI

Aenictii Emery, 1901a: 36. Type-genus: *Aenictus*.

Taxonomic history

Aenictini as tribe of Dorylinae: Emery, 1901a: 36 [Aenictii]; Emery, 1904: 116 [Aenictii]; Borgmeier, 1954b: 212; Borgmeier, 1955: 57; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 11.

Aenictini as tribe of Ecitoninae: Ashmead, 1905b: 381; Ashmead, 1906: 24.

Aenictini as junior synonym of Ecitonini: Wheeler, G.C. & Wheeler, J. 1985: 256 [Aenictii].

Aenictini as tribe of Aenictinae: Bolton, 1994: 12.

Genus: *Aenictus*.

Subfamily, tribe and genus references

Roger, 1863b: 36, 41 (catalogue); Mayr, 1863: 394, 457 (catalogue); Mayr, 1865: 17 (*Aenictus*, *Typhlatta* diagnoses); Mayr, 1879: 668 (*Typhlatta* species key); Dalla Torre, 1893: 7 (catalogue); Forel, 1901a: 464 (India & Sri Lanka species key); Bingham, 1903: 6 (diagnosis, India, Sri Lanka & Burma species key); Ashmead, 1906: 24 (genera key); Emery, 1910b: 28 (diagnosis, catalogue); Arnold, 1915: 136, 137 (diagnosis, South Africa species key); Wheeler, W.M. 1922a: 751 (Afrotropical catalogue); Wheeler, W.M. 1930c: 198, 207 (*A. (Typhlatta)* & Philippines *A. (Aenictus)* species keys); Chapman & Capco, 1951: 10 (Asia checklist); Wilson, 1964: 436 (Indo-Australian species, revision, key); Taylor & Brown, D.R. 1985: 52 (Australia catalogue); Taylor, 1987a: 6 (Australia, New Caledonia & New Zealand checklists); Billen &

Gotwald, 1988: 293 (Dufour's gland); Terayama & Yamane, 1989: 602 (Indonesia, Sumatra species key); Dlussky, Soyunov & Zabelin, 1990: 179 (Turkmenistan species key); Bolton, 1990c: 1358 (diagnosis, morphology, phylogeny); Baroni Urbani, Bolton & Ward, 1992: 315 (phylogeny); Bolton, 1994: 12 (diagnosis, synoptic classification); Xu, 1994a: 118 (China species key); Bolton, 1995a: 1047 (census); Bolton, 1995b: 58 (catalogue); Wu, J. & Wang, 1995: 50 (China species key); Hölldobler, Obermayer & Peeters, 1996: 158 (metatibial gland); Shattuck, 1999: 58 (Australia synopsis); Billen, Gobin & Ito, 1999: 307 (postpygidial gland); Zhou, 2001: 58 (China, Guangxi species key).

Genus of Aenictini

Genus *AENICTUS*

Aenictus Shuckard, 1840: 266. Type-species: *Aenictus ambiguus*, by original designation.

Taxonomic history

Aenictus in Dorylinae: Shuckard, 1840: 266; Smith, F. 1859b: 9; Smith, F. 1871: 336.

Aenictus in Dorylinae: Mayr, 1865: 17 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 7.

Aenictus in Dorylinae, Dorylini: Emery, 1895e: 765 [Dorylii]; Wheeler, W.M. 1910d: 137.

Aenictus in Ectoninae, Ectonini: Ashmead, 1905b: 381; Ashmead, 1906: 25.

Aenictus in Dorylinae, Ectonini: Forel, 1893a: 163; Forel, 1901a: 464; Emery, 1910b: 28 [Ectini]; Arnold, 1915: 136; Forel, 1917: 240; Wheeler, W.M. 1922a: 634; Wheeler, W.M. & Chapman, 1925: 47; Donisthorpe, 1943c: 620; Chapman & Capco, 1951: 10; Wheeler, G.C. & Wheeler, J. 1985: 256 (anachronism).

Aenictus in Dorylinae, Aenictini: Borgmeier, 1954b: 212; Borgmeier, 1955: 57; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 11.

Aenictus in Aenictinae, Aenictini: Bolton, 1990c: 1358; Baroni Urbani, Bolton & Ward, 1992: 315; Bolton, 1994: 12; Wu, J. & Wang, 1995: 49.

[*Enictus* Walker, 1860: 306 and Smith, F. 1865: 79; incorrect subsequent spellings.]

Junior synonyms of *AENICTUS*

Typhlatta Smith, F. 1857: 79. Type-species: *Typhlatta laeviceps*, by monotypy.

Taxonomic history

Typhlatta in Myrmicinae: Smith, F. 1857: 79 [Myrmicidae]; Mayr, 1865: 17 [Myrmicidae]; Smith, F. 1871: 333 [Myrmicidae].

Typhlatta in Attidae: Smith, F. 1862a: 49.

Typhlatta in Dorylinae: Forel, 1878: 365 [Dorylidae] (footnote).

Typhlatta as subgenus of *Aenictus*: Wheeler, W.M. 1930c: 198; Donisthorpe, 1943d: 734; Chapman & Capco, 1951: 12.

Typhlatta as junior synonym of *Aenictus*: Forel, 1890b: ciii; Dalla Torre, 1893: 7; Bingham, 1903: 6; Emery, 1910b: 28; Wilson, 1964: 444.

Paraenictus Wheeler, W.M. 1929d: 27 [as subgenus of *Aenictus*]. Type-species: *Aenictus (Paraenictus) silvestrii*, by monotypy.

Taxonomic history

Paraenictus in Dorylinae: Wheeler, W.M. 1929d: 27.

Paraenictus as junior synonym of *Aenictus*: Wilson, 1964: 444.

Genus references: see above.

SUBFAMILY DORYLINAE

Subfamily DORYLINAE

Dorylida Leach, 1815: 147. Type-genus: *Dorylus*.

Taxonomic history

Dorylinae as family: Leach, 1815: 147 [Dorylida (family-group name)]; Haliday, 1836: 331 [Dorylidae]; Swainson & Shuckard, 1840: 175 [Dorylidae]; Shuckard, 1840: 188 [Dorylidae]; Smith, F. 1859b: 1 [Dorylidae]; Mayr, 1866b: 895 [Dorylidae]; Smith, F. 1871: 225 [Dorylidae]; André, 1882a: 125 [Dorylidae]; Cresson, 1887: 93 [Dorylidae]; Emery, 1894b: 381 [Dorylidae]; Ashmead, 1905b: 381 [Dorylidae]; Ashmead, 1906: 21 [Dorylidae]; Bernard, 1951: 1046 [Dorylidae]; Bernard, 1953: 217 [Dorylidae].

Dorylinae as subfamily of Dorylidae: Ashmead, 1905b: 381; Ashmead, 1906: 25.

Dorylinae as subfamily of Formicidae: Mayr, 1865: 16 [Dorylidae]; Emery, 1877a: 70 [Dorylidae]; Forel, 1878: 365 [Dorylidae]; Emery & Forel, 1879: 465 [Dorylidae]; André, 1881: 64 [Dorylidae]; Forel, 1892g: 220 [Dorylidae]; Forel, 1893a: 163; Dalla Torre, 1893: 1; Forel, 1895a: 118 [Dorylidae]; Emery, 1895e: 764 [subfamily spelled Dorylini]; Emery, 1896b: 174; Forel, 1899: 22; Forel, 1901a: 462; Forel, 1901b: 139; Emery, 1901a: 36; Bingham, 1903: 1; Emery, 1910b: 3; Wheeler, W.M. 1910d: 137; Arnold, 1915: 110; Escherich, 1917: 2 [Dorylini]; Forel, 1917: 239; Bondroit, 1918: 14 [Dorylidae]; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 632; Clark, 1951: 16; Brown, 1954b: 28; Borgmeier, 1955: 51; all subsequent authors. [*Taxonomy*, p. 36.]

Tribe: Dorylini.

Tribe DORYLINI

Dorylida Leach, 1815: 147. Type-genus: *Dorylus*.

Taxonomic history

Dorylini as tribe of Dorylinae: Forel, 1893a: 163 [Dorylii]; Emery, 1895e: 758 [Dorylii]; Forel, 1901a: 463 [Dorylii]; Emery, 1901a: 36 [Dorylii]; Emery, 1904: 116 [Dorylii]; Ashmead, 1905b: 381; Ashmead, 1906: 25; Wheeler, W.M. 1910d: 137 [Dorylii]; Emery, 1910b: 5; Arnold, 1915: 113; Forel, 1917: 239; Wheeler, W.M. 1922a: 633; Borgmeier, 1955: 57.

Genus: *Dorylus*.

Subfamily, tribe and genus references

Shuckard, 1840: 195 (genera key); Roger, 1863b: 20, 41, 42 (*Typhlopone*, *Anomma*, *Dorylus*, *Rhogmus*, *Dichthadia* catalogues); Smith, F. 1858b: 110, 112 (*Typhlopone*, *Anomma* diagnoses); Mayr, 1863: 394, 407, 408, 453, 457 (*Anomma*, *Dichthadia*, *Dorylus*, *Rhogmus*, *Typhlopone* catalogues); Mayr, 1865: 16, 17 (*Dorylinae*, *Typhlopone*, *Anomma*, *Dorylus*, *Rhogmus*, *Dichthadia* diagnoses); Mayr, 1867a: 91 (*Typhlopone* diagnosis); Forel, 1878: 365 (diagnosis); André, 1882c: 251 (Europe & Algeria species key); Dalla Torre, 1893: 8, 9 (*Rhogmus*, *Anomma*, *Dorylus* catalogues); Emery, 1895e: 699, 701, 706; 764 (diagnosis genus, subgenera, all species key; diagnoses subfamily & tribe); Emery, 1896b: 174 (genera key); Forel, 1901a: 462 (subgenera key); Bingham, 1903: 2 (diagnosis, India, Sri Lanka & Burma species key); Ashmead, 1906: 22, 25, 26 (subfamilies, tribes & genera keys); Wheeler, W.M. 1910d: 137 (diagnosis); Emery, 1910b: 4 (diagnosis, tribes, key, catalogue); Emery, 1910b: 8 (*D. (Dichthadia)* diagnosis, catalogue); Emery, 1910b: 9 (*D. (Dorylus)* diagnosis, catalogue); Emery, 1910b: 10 (*D. (Anomma)* diagnosis, catalogue); Emery, 1910b: 12 (*D. (Typhlopone)* diagnosis, catalogue); Emery, 1910b: 13 (*D. (Rhogmus)* diagnosis, catalogue); Emery, 1910b: 14 (*D. (Alaopone)* diagnosis, catalogue); Santschi, 1912: 154 (*D. (Anomma)* species key); Arnold, 1915: 113, 114, 115 (tribes key, subgenera key, South Africa *D. (Dorylus)* species key); Forel, 1917: 239 (synoptic classification); Santschi, 1919a: 231 (*D. (Rhogmus)* males key); Forel, 1921: 135 (diagnosis); Wheeler, W.M. 1922a: 39, 41, 633, 727 (subfamily & genus diagnoses, tribes & subgenera key, Afrotropical catalogue); Morley, 1939: 114 (phylogeny); Santschi, 1939a: 152 (*D. (Alaopone)* species, males key); Brown & Nutting, 1950: 123 (venation & phylogeny); Chapman & Capco, 1951: 9 (Asia checklist); Brown, 1954b: 28 (phylogeny); Raignier & Boven, 1955: 86, 114 (*D. (Anomma)* species key); Borgmeier, 1955: 57 (tribes key); Eisner, 1957: 478 (proventriculus morphology); Wilson, 1964: 436 (Indo-Australian species key); Gotwald, 1969: 49 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 36 (diagnosis); Kempf, 1972a: 265 (Neotropical, synoptic classification); Boven, 1972: 142 (*D. (Anomma)* queens key); Brown, 1973b: 166 (genera & distribution); Boven, 1975: 196 (*D. (Dorylus)* queens key); Wheeler, G.C. & Wheeler, J. 1976: 46 (larvae, review & synthesis); Smith, D.R. 1979: 1326 (North America catalogue); Gotwald & Burdette, 1981: 78 (phylogeny); Gotwald, 1982: 168 (*Dorylus* subgenera key); Snelling, 1981: 390 (synoptic classification); Wheeler, G.C. & Wheeler, J. 1985: 256 (synoptic classification); Billen, 1986: 168 (Dufour's gland); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 9 onward (synoptic classification, world genera, keys); Bolton, 1990c: 1357 (diagnosis, morphology, phylogeny); Baroni Urbani, Bolton & Ward, 1992: 316 (phylogeny); Xu, 1994a: 118 (China species key); Bolton, 1994: 35 (diagnosis, synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 177 (catalogue); Hölldobler, Obermayer & Peeters, 1996: 158 (metatibial gland).

Genus of Dorylini**Genus DORYLUS**

Dorylus Fabricius, 1793: 365. Type-species: *Vespa helvola*, by monotypy.

Taxonomic history

Dorylus in Dorylidae: Leach, 1815: 147 [Dorylida]; Shuckard, 1840: 268; Smith, F. 1859b: 1; Smith, F. 1871: 335.

Dorylus in Dorylinae: Mayr, 1865: 17 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 9.

Dorylus in Dorylinae, Dorylini: Forel, 1893a: 163; Emery, 1895e: 764 [Dorylii]; Ashmead, 1905b: 381; Wheeler, W.M. 1910d: 137; Emery, 1910b: 5; Arnold, 1915: 113; Forel, 1917: 239; all subsequent authors.

Subgenera of *DORYLUS* include the nominal plus the following.

Subgenus DORYLUS (TYPHLOPONE)

Typhlopone Westwood, 1839: 219. Type-species: *Typhlopone fulva*, by subsequent designation of Emery, 1895e: 701.

Taxonomic history

Typhlopone in Dorylidae: Shuckard, 1840: 262.

Typhlopone in Poneridae: Smith, F. 1858b: 110; Smith, F. 1871: 324.

Typhlopone in Ponerinae: Smith, F. 1857: 70 [Poneridae]; Mayr, 1861: 52 [Poneridae]; Mayr, 1862: 714 (in key) [Poneridae]; André, 1874: 170 [Poneridae].

Typhlopone in Dorylinae: Mayr, 1865: 16 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae].

Typhlopone in Myrmicinae: Emery & Forel, 1879: 465 [Myrmicidae].

Typhlopone in Dorylinae, Dorylini: Ashmead, 1905b: 381.

Typhlopone as genus: Westwood, 1839: 219; Shuckard, 1840: 262; Ashmead, 1905b: 381; Ashmead, 1906:

26.

Typhlopone as subgenus of *Labidus*: Shuckard, 1840: 265.*Typhlopone* as junior synonym of *Dorylus*: Dalla Torre, 1893: 9; Bingham, 1903: 1; Brown, 1973b: 185 [provisional].*Typhlopone* as subgenus of *Dorylus*: Emery, 1895e: 701; Emery, 1910b: 12; Wheeler, W.M. 1910d: 137; Arnold, 1915: 125; Forel, 1917: 239; Wheeler, W.M. 1922a: 634; all subsequent authors.Junior synonym of **DORYLUS (TYPHLOPONE)***Cosmaecetes* Spinola, 1851: 54. Type-species: *Cosmaecetes homalinus* (junior synonym of *Dorylus fulvus*), by monotypy.

Taxonomic history

[*Cosmaecetes* also described as new by Spinola, 1853: 70.]*Cosmaecetes* as junior synonym of *Typhlopone*: Smith, F. 1858b: 110; Roger, 1863b: 20; Emery & Forel, 1879: 465; Emery, 1895e: 723; Emery, 1910b: 12.[*Cosmaegetes* Dalla Torre, 1893: 9, incorrect subsequent spelling.]Subgenus **DORYLUS (RHOGMUS)***Rhogmus* Shuckard, 1840: 323. Type-species: *Rhogmus fimbriatus*, by original designation.

Taxonomic history

Rhogmus in Dorylidae: Shuckard, 1840: 323; Smith, F. 1859b: 4.*Rhogmus* Dorylinae: Mayr, 1865: 17 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 8.*Rhogmus* in Dorylinae, Dorylini: Forel, 1893a: 163; Ashmead, 1906: 26.*Rhogmus* as genus: Shuckard, 1840: 323; Dalla Torre, 1893: 8; Forel, 1893a: 163; Ashmead, 1906: 26.*Rhogmus* as subgenus of *Dorylus*: Emery, 1895e: 702; Emery, 1910b: 13; Wheeler, W.M. 1910d: 137; Arnold, 1915: 129; Forel, 1917: 239; Wheeler, W.M. 1922a: 634; all subsequent authors except the following.*Rhogmus* as junior synonym of *Dorylus*: Brown, 1973b: 184 [provisional].Subgenus **DORYLUS (ANOMMA)***Anomma* Shuckard, 1840: 326. Type-species: *Anomma burmeisteri*, by original designation.

Taxonomic history

Anomma in Dorylidae: Shuckard, 1840: 326.*Anomma* in Poneridae: Smith, F. 1858b: 112; Smith, F. 1871: 324.*Anomma* in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae].*Anomma* in Dorylinae: Mayr, 1865: 17 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae]; Dalla Torre, 1893: 8.*Anomma* in Dorylinae, Dorylini: Forel, 1893a: 163; Ashmead, 1906: 26, all subsequent authors.*Anomma* as genus: Shuckard, 1840: 326; Mayr, 1862: 737; Dalla Torre, 1893: 8; Forel, 1893a: 163; Ashmead, 1906: 26; Brown, 1973b: 178 [provisional genus].*Anomma* as subgenus of *Dorylus*: Haldeman, 1849: 201 [*Anomma* congeneric with *Dorylus*]; Emery, 1895e: 701; Emery, 1910b: 10; Wheeler, W.M. 1910d: 137; Forel, 1917: 239; Wheeler, W.M. 1922a: 634; Donisthorpe, 1943c: 623; all subsequent authors.Junior synonyms of **DORYLUS (ANOMMA)***Sphegomyrmex* Imhoff, 1852: 176. Type-species: *Dorylus nigricans*, by subsequent designation of Donisthorpe, 1943d: 727.

Taxonomic history

Sphegomyrmex as junior synonym of *Anomma*: Smith, F. 1858b: 112; Roger, 1861a: 45; Mayr, 1863: 394; Dalla Torre, 1893: 8; Emery, 1895e: 710; Emery, 1910b: 10.*Sphecomyrmex* Schulz, W.A. 1906: 154, unjustified emendation of *Sphegomyrmex*.

Taxonomic history

Sphecomyrmex as junior synonym of *Anomma*: Bolton, 1995b: 46.Subgenus **DORYLUS (DICHTHADIA)***Dichthadia* Gerstäcker, 1863: 93. Type-species: *Dichthadia glaberrima* (junior synonym of *Dorylus laevigatus*), by monotypy.

Taxonomic history

[Type-species not *Dichthadia furcata*, unjustified subsequent designation by Ashmead, 1906: 26.]*Dichthadia* in Dorylinae: Mayr, 1865: 17 [Dorylidae]; Forel, 1878: 365 (footnote) [Dorylidae].*Dichthadia* in Dorylinae, Dorylini: Ashmead, 1905b: 381.*Dichthadia* as genus: Gerstäcker, 1863: 93; Ashmead, 1905b: 381; Ashmead, 1906: 26.*Dichthadia* as junior synonym of *Dorylus*: Dalla Torre, 1893: 9; Bingham, 1903: 1; Brown, 1973b: 180 [provisional].*Dichthadia* as subgenus of *Dorylus*: Emery, 1895e: 702; Emery, 1910b: 8; Wheeler, W.M. 1910d: 137; Forel, 1917: 239; Wheeler, W.M. 1922a: 633; all subsequent authors.Subgenus **DORYLUS (ALAO PONE)***Alaopone* Emery, 1881a: 274. Type-species: *Alaopone oberthueri* (junior synonym of *Dorylus orientalis*), by subsequent designation of Emery, 1910b: 15.

Taxonomic history

[Type-species not *Typhlopone carteri* Ashmead, 1906: 26, *nomen nudum* (attributed to Shuckard).]

Alaopone in Dorylinae, Dorylini: Ashmead, 1905b: 381.

Alaopone as junior synonym of *Dorylus*: Dalla Torre, 1893: 9; Bingham, 1903: 1.

Alaopone as genus: Emery, 1881a: 274; Ashmead, 1905b: 381; Ashmead, 1906: 26.

Alaopone as subgenus of *Dorylus*: Emery, 1895e: 702; Emery, 1910b: 14; Wheeler, W.M. 1910d: 137; Arnold, 1915: 133; Forel, 1917: 239; Wheeler, W.M. 1922a: 633; Santschi, 1939a: 143; all subsequent authors.

Junior synonym of *DORYLUS* (*ALAEOPONE*)

Shuckardia Emery, 1895e: 703 [as subgenus of *Dorylus*]. Type-species: *Dorylus atriceps*, by original designation.

Taxonomic history

[Type-species not *Alaopone abeillei*, unjustified subsequent designation by Ashmead, 1906: 27.]

Shuckardia in Dorylinae, Dorylini: Ashmead, 1905b: 381.

Shuckardia as genus: Ashmead, 1905b: 381 (raised to genus); Ashmead, 1906: 27.

Shuckardia as subgenus of *Dorylus*: Emery, 1895e: 703; Wheeler, W.M. 1910d: 137.

Shuckardia as junior synonym of *Alaopone*: Emery, 1910b: 14.

Genus references: see above.

SUBFAMILY AENICTOGITONINAE**Subfamily AENICTOGITONINAE**

Aenictogitonini Ashmead, 1905b: 381. Type-genus: *Aenictogiton*.

Taxonomic history

Aenictogitoninae as tribe of Dorylinae: Ashmead, 1905b: 381 [Aenictogitonini]; Ashmead, 1906: 25 [Aenictogitonini]; Borgmeier, 1955: 57 [Aenictogitonini].

Aenictogitoninae as tribe of Ponerinae: Brown, 1975: 43 [Aenictogitini]; Dlussky & Fedoseeva, 1988: 79 [Aenictogitini]; Hölldobler & Wilson, 1990: 11 [Aenictogitini].

Aenictogitoninae as subfamily of Formicidae: Baroni Urbani, Bolton & Ward, 1992: 315; Bolton, 1994: 14. [Taxonomy, p. 37.]

Tribe: Aenictogitonini.

Tribe AENICTOGITONINI

Aenictogitonini Ashmead, 1905b: 381. Type-genus: *Aenictogiton*.

Taxonomic history

Aenictogitonini as tribe of Dorylinae: Ashmead, 1905b: 381, and see references above.

Genus: *Aenictogiton*.

Subfamily, tribe and genus references

Emery, 1910b: 27 (diagnosis, catalogue); Wheeler, W.M. 1922a: 750 (catalogue); Santschi, 1924b: 200 (all species key); Brown, 1975: 43 (diagnosis, review of genus); Baroni Urbani, Bolton & Ward, 1992: 315 (phylogeny); Bolton, 1994: 14 (synopsis); Bolton, 1995a: 1038 (census); Bolton, 1995b: 58 (catalogue).

Genus of Aenictogitonini**Genus AENICTOGITON**

Aenictogiton Emery, 1901b: 49. Type-species: *Aenictogiton fossiceps*, by monotypy.

Taxonomic history

Aenictogiton in Dorylinae, Aenictogitonini: Ashmead, 1905b: 381.

Aenictogiton in Dorylinae, Dorylini: Wheeler, W.M. 1910d: 137.

Aenictogiton in Dorylinae, Ecitonini: Emery, 1910b: 27 [Ecitini]; Forel, 1917: 240; Wheeler, W.M. 1922a: 636; Donisthorpe, 1943c: 620.

Aenictogiton in Ponerinae, Aenictogitonini: Brown, 1975: 43; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 11.

Aenictogiton incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Aenictogiton in Aenictogitoninae, Aenictogitonini: Baroni Urbani, Bolton & Ward, 1992: 315; Bolton, 1994: 14.

Genus references: see above.

The leptonillomorph subfamilies [Taxonomy, p. 38]**SUBFAMILY APOMYRMINAE****Subfamily APOMYRMINAE**

Apomyrmini Dlussky & Fedoseeva, 1988: 78. Type-genus: *Apomyrma*.

Taxonomic history

Apomyrminae as subfamily of Formicidae: Baroni Urbani, Bolton & Ward, 1992: 316; Bolton, 1994: 16.
[*Taxonomy*, p. 39.]

Tribe: Apomyrmini.

Tribe APOMYRMINI

Apomyrmini Dlussky & Fedoseeva, 1988: 78. Type-genus: *Apomyrma*.

Taxonomic history

Apomyrmini as tribe of Ponerinae: Dlussky & Fedoseeva, 1988: 78.
Apomyrmini as tribe of Leptanillinae: Bolton, 1990b: 280; Kugler, C. 1992: 106.
Apomyrmini as tribe of Apomyrminae: Bolton, 1994: 16.

Genus: *Apomyrma*.

Genus of Apomyrmini**Genus APOMYRMA**

Apomyrma Brown, Gotwald & Lévieux, 1971: 259. Type-species: *Apomyrma stygia*, by original designation.

Taxonomic history

Apomyrma in Ponerinae, Amblyoponini: Brown, Gotwald & Lévieux, 1971: 273; Wheeler, G.C. & Wheeler, J. 1985: 256; Hölldobler & Wilson, 1990: 10.
Apomyrma in Ponerinae, Apomyrmini: Dlussky & Fedoseeva, 1988: 78 (misspelled as Aromyrmini).
Apomyrma in Leptanillinae, Apomyrmini: Bolton, 1990b: 280; Kugler, C. 1992: 106.
Apomyrma in Apomyrminae, Apomyrmini: Baroni Urbani, Bolton & Ward, 1992: 316; Bolton, 1994: 16.

Subfamily, tribe and genus references

Bolton, 1990b: 280 (diagnosis, abdominal morphology); Kugler, C. 1992: 106 (sting structure); Baroni Urbani, Bolton & Ward, 1992: 316 (phylogeny); Bolton, 1994: 16 (diagnosis, synoptic classification); Bolton, 1995a: 1038 (census); Bolton, 1995b: 9, 74 (catalogue).

SUBFAMILY LEPTANILLINAE**Subfamily LEPTANILLINAE**

Leptanillini Emery, 1910b: 32. Type-genus: *Leptanilla*.

Taxonomic history

Leptanillinae as family: Bernard, 1951: 1053 [Leptanillidae].
Leptanillinae as subfamily of Formicidae: Wheeler, W.M. 1923c: 335; Wheeler, G.C. 1928: 89 (in text); Wheeler, G.C. & Wheeler, E.W. 1930: 199; Clark, 1951: 16; Brown, 1954b: 28; Petersen, 1968: 577; Wheeler, G.C. & Wheeler, J. 1972: 37; Brown, 1973b: 166; all subsequent authors.
[*Taxonomy*, p. 39.]

Tribes: Anomalomyrmini, Leptanillini.

Subfamily and tribes references

Emery, 1904: 107 (anatomy, affinities); Wheeler, W.M. 1910d: 138 (diagnosis); Wheeler, G.C. 1928: 85 (larva); Wheeler, G.C. & Wheeler, E.W. 1930: 199 (diagnosis); Morley, 1939: 114 (phylogeny); Kutter, 1948: 293 (diagnosis); Brown, 1954b: 28 (phylogeny); Bernard, 1967: 90 (diagnosis); Petersen, 1968: 577 (tribe, males); Gotwald, 1969: 97 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 37 (diagnosis); Brown, 1973b: 166 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 46 (larvae, review & synthesis); Baroni Urbani, 1977a: 430 (diagnosis, revision); Snelling, 1981: 392 (synoptic classification); Wheeler, G.C. & Wheeler, J. 1985: 257 (synoptic classification); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 9 onward (synoptic classification, genera keys); Bolton, 1990b: 269 (diagnosis, revision of tribes, synoptic classification, key); Kugler, C. 1992: 103 (sting structure); Baroni Urbani, Bolton & Ward, 1992: 316, 317 (phylogeny); Bolton, 1994: 69 (diagnosis, synoptic classification, genera key); Bolton, 1995a: 1040 (census); Bolton, 1995b: 9, 12 (catalogue); Ogata, Terayama & Masuko, 1995: 32 (genera, classification); Shattuck, 1999: 117 (Australia, synopsis).

Tribe ANOMALOMYRMINI

Anomalomyrmini Taylor, in Bolton, 1990b: 278. Type-genus: *Anomalomyrma*.

Taxonomic history

Anomalomyrmini as tribe of Leptanillinae: Bolton, 1990b: 273; Hölldobler & Wilson, 1990: 12; Kugler, C. 1992: 107; Bolton, 1994: 70. [*Taxonomy*, p. 39.]

Genera: *Anomalomyrma*, *Protanilla*.

Tribe references: see above.

Genera of Anomalomyrmini**Genus ANOMALOMYRMA**

Anomalomyrma Taylor, in Bolton, 1990b: 278. Type-species: *Anomalomyrma taylori*, by original

designation.

Taxonomic history

Anomalomyrma in Leptanillinae, Anomalomyrmini: Bolton, 1990b: 278; Hölldobler & Wilson, 1990: 12; Bolton, 1994: 70; Bolton, 1995b: 66.

Genus PROTANILLA

Protanilla Taylor, in Bolton, 1990b: 279. Type-species: *Protanilla rafflesi*, by original designation.

Taxonomic history

Protanilla in Leptanillinae: Anomalomyrmini: Bolton, 1990b: 279; Hölldobler & Wilson, 1990: 12; Kugler, C. 1992: 107; Bolton, 1994: 70; Bolton, 1995b: 369.

Genus references

Xu & Zhang, 2002: 140 (China species key); Xu, 2002a: 118 (China species key).

Tribe LEPTANILLINI

Leptanillini Emery, 1910b: 32. Type-genus: *Leptanilla*.

Taxonomic history

Leptanillini as tribe of Dorylinae: Emery, 1910b: 32; Wheeler, W.M. 1910d: 138 [Leptanillii]; Arnold, 1915: 113; Emery, 1916b: 94; Forel, 1917: 240; Bondroit, 1918: 16; Wheeler, W.M. 1922a: 633.

Leptanillini as tribe of Leptanillinae: Wheeler, W.M. 1923c: 335; Chapman & Capco, 1951: 17; Bolton, 1990b: 276; Bolton, 1994: 70. [*Taxonomy*, p. 40.]

Genera: *Leptanilla*, *Phaulomyrma*, *Yavnella*.

Tribe references: see above.

Genera of Leptanillini

Genus LEPTANILLA

Leptanilla Emery, 1870: 196. Type-species: *Leptanilla revelierii*, by monotypy.

Taxonomic history

Leptanilla in Dorylinae: Emery, 1870: 196 [Dorylidae]; Emery, 1904: 116.

Leptanilla in Myrmicinae: Emery, 1877a: 81 [Myrmicidae]; Emery & Forel, 1879: 456 [Myrmicidae]; André, 1882c: 268 [Myrmicidae]; Dalla Torre, 1893: 72.

Leptanilla in Myrmicinae, Myrmicini: Emery, 1895e: 769.

Leptanilla in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Leptanilla in Dorylinae, Leptanillini: Emery, 1910b: 32; Wheeler, W.M. 1910d: 138; Forel, 1917: 240; Wheeler, W.M. 1922a: 636.

Leptanilla in Leptanillinae, Leptanillini: Wheeler, W.M. 1923c: 335; Wheeler, G.C. 1928: 89; Donisthorpe, 1943c: 656; Baroni Urbani, 1977a: 433; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 79; Bolton, 1990b: 276; Hölldobler & Wilson, 1990: 12; Bolton, 1994: 70.

Junior synonym of LEPTANILLA

Leptomesites Kutter, 1948: 286. Type-species: *Leptomesites escheri*, by original designation.

Taxonomic history

Leptomesites in Leptanillinae: Kutter, 1948: 286; Wheeler, G.C. & Wheeler, J. 1985: 257.

Leptomesites as junior synonym of *Leptanilla*: Baroni Urbani, 1977a: 433.

Genus references

André, 1882c: 268 (Europe & Algeria species); Dalla Torre, 1893: 72 (catalogue); Emery, 1904: 107 (anatomy, affinities); Emery, 1910b: 32 (diagnosis, catalogue); Emery, 1916b: 94 (Italy species); Bondroit, 1918 (France & Belgium species key); Wheeler, G.C. & Wheeler, E.W. 1930: 200 (catalogue); Chapman & Capco, 1951: 17 (Asia checklist); Baroni Urbani, 1977a: 434 (diagnosis, all species revision, key); Taylor & Brown, D.R. 1985: 53 (Australia catalogue); Taylor, 1987a: 34 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1989: 35 (Japan species key); Ogata, Terayama & Masuko, 1995: 32 (diagnosis, males); Bolton, 1995a: 1050 (census); Bolton, 1995b: 229 (catalogue); Shattuck, 1999: 117 (Australia synopsis); Xu & Zhang, 2002: 142 and Xu, 2002a: 116 (China species key).

Genus PHAULOMYRMA

Phaulomyrma Wheeler, G.C. & Wheeler, E.W. 1930: 193. Type-species: *Phaulomyrma javana*, by original designation.

Taxonomic history

Phaulomyrma in Leptanillinae, Leptanillini: Wheeler, G.C. & Wheeler, E.W. 1930: 201; Donisthorpe, 1943c: 683; Dlussky & Fedoseeva, 1988: 79; Bolton, 1990b: 277; Hölldobler & Wilson, 1990: 12; Bolton, 1994: 70; Bolton, 1995b: 316.

Genus references

Petersen, 1968: 593 (review of genus); Baroni Urbani, 1977a: 480 (review of genus); Ogata, Terayama & Masuko, 1995: 32 (review of genus).

Genus YAVNELLA

Yavnella Kugler, J. 1987: 52. Type-species: *Yavnella argamani*, by original designation.

Taxonomic history

Yavnella in Leptanillinae, Leptanillini: Kugler, J. 1987: 52; Bolton, 1990b: 277; Hölldobler & Wilson, 1990: 12; Bolton, 1994: 70; Bolton, 1995b: 424; Ogata, Terayama & Masuko, 1995: 32.

The poneromorph subfamilies [*Taxonomy*, p. 40]

SUBFAMILY AMBLYOPONINAE stat. rev.

Subfamily AMBLYOPONINAE

Amblyoponinae Forel, 1893a: 162. Type-genus: *Amblyopone*. Stat. rev.

Taxonomic history

Amblyoponinae as subfamily of Formicidae: Forel, 1893a: 162 [Amblyoponinae]; Forel, 1895a: 110 [Amblyoponeridae]; Clark, 1951: 15 (in key) [Amblyoponinae]. [*Taxonomy*, p. 41.]

Tribe: Amblyoponini.

Tribe AMBLYOPONINI

Amblyoponinae Forel, 1893a: 162. Type-genus: *Amblyopone*.

Taxonomic history

Amblyoponini as tribe of Pachycondylinae: Ashmead, 1905b: 382.

Amblyoponini as tribe of Ponerinae: Emery, 1895b: 261 [Amblyoponii]; Emery, 1895e: 761 [Amblyoponii]; Forel, 1900b: 54 [Amblyoponii]; Emery, 1901a: 36 [Amblyoponii]; Wheeler, W.M. 1910d: 134 [Amblyoponii]; Emery, 1911b: 21; Emery, 1916b: 25; Forel, 1917: 235; Bondroit, 1918: 80; Wheeler, W.M. 1922a: 637; Wheeler, W.M. & Chapman, 1925: 55; Chapman & Capco, 1951: 22; Brown, 1953b: 11; Brown, 1960a: 146; Kusnezov, 1964: 51; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 9; Jaffe, 1993: 7; Bolton, 1994: 164.

Junior synonyms of AMBLYOPONINI

Onychomyrmicini Ashmead, 1905b: 382. Type-genus: *Onychomyrmex*.

Taxonomic history

Onychomyrmicini as tribe of Ponerinae: Ashmead, 1905b: 382; Wheeler, W.M. 1922a: 638.

Onychomyrmicini as subtribe of Ponerini: Emery, 1911b: 96.

Onychomyrmicini as junior synonym of Amblyoponini: Bolton, 1994: 164.

Reneini Donisthorpe, 1947b: 183. Type-genus: *Renea* (junior synonym of *Prionopelta*).

Taxonomic history

Reneini as tribe of Ponerinae: Donisthorpe, 1947b: 183.

Reneini as junior synonym of Amblyoponini: Brown, 1953b: 11.

Examblyoponini Donisthorpe, 1949d: 401. Type-genus: *Examblyopone* (junior synonym of *Prionopelta*).

Taxonomic history

Examblyoponini as tribe of Ponerinae: Donisthorpe, 1949d: 401.

Examblyoponini as junior synonym of Amblyoponini: Brown, 1951: 102.

Ericapeltini Kusnezov, 1955: 275. Type-genus: *Ericapelta* (junior synonym of *Amblyopone*).

Taxonomic history

Ericapeltini as subtribe of Amblyoponini: Kusnezov, 1955: 275.

Ericapeltini as junior synonym of Amblyoponini: Bolton, 1994: 164.

Genera (extant): *Adetomyrma*, *Amblyopone*, *Bannapone*, *Concoctio*, *Myopopone*, *Mystrium*, *Onychomyrmex*, *Prionopelta*.

Genus (extinct): **Casaleia*.

Genus incertae sedis: *Paraprionopelta*.

Subfamily and tribe references

Emery, 1895e: 766 (diagnosis); Wheeler, W.M. 1910d: 134 (diagnosis); Emery, 1911b: 21 (diagnosis, genera, key); Emery, 1911b: 96 (subtribe Onychomyrmicini, diagnosis); Forel, 1917: 235 (synoptic classification); Wheeler, W.M. 1922a: 640, 758, 1006 (genera key, Afrotropical, Malagasy catalogues); Brown, 1960a: 146 (diagnosis, all genera revision, key); Wheeler, G.C. & Wheeler, J. 1976: 48 (larvae, review & synthesis); Wheeler, G.C. & Wheeler, J. 1985: 256 (synoptic classification); Terayama, 1989b: 345 (Taiwan fauna); Hölldobler & Wilson, 1990: 9 (synoptic classification); Brandão, 1991: 389 (Neotropical fauna, synoptic classification); Bolton, 1994: 164 (synoptic classification); Ward, 1994: 167 (tribe diagnosis & discussion); Bolton, 1995a: 1042 (census); Bolton, 1995b: 9 (catalogue); Hashimoto, 1996: 353 (abdominal structure); Schoeters, Ito, Miyata & Billen, 1999: 3 (venom gland structure); Xu, 2000a: 300 (Malesian genera key).

See also general references under PONERINAE.

Genera of Amblyoponini

Genus ADETOMYRMA

Adetomyrma Ward, 1994: 160. Type-species: *Adetomyrma venatrix*, by original designation.

Taxonomic history

Adetomyrma in Ponerinae, Amblyoponini: Ward, 1994: 159; Bolton, 1995b: 58.

Genus **AMBLIOPONE**

Amblyopone Erichson, 1842: 260. Type-species: *Amblyopone australis*, by monotypy.

Taxonomic history

Amblyopone in Poneridae: Smith, F. 1858b: 108; Smith, F. 1871: 324.

Amblyopone in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 16 [Poneridae]; Emery & Forel, 1879: 455 [Poneridae]; Dalla Torre, 1893: 13.

Amblyopone in Amblyoponinae: Forel, 1893a: 162; Clark, 1951: 15 (in key).

Amblyopone in Pachycondyliinae, Amblyoponini: Ashmead, 1905b: 382.

Amblyopone in Ponerinae, Amblyoponini: Emery, 1895b: 261; Emery, 1895e: 766; Emery, 1901a: 34; Wheeler, W.M. 1910d: 134; Emery, 1911b: 25; Forel, 1917: 235; Wheeler, W.M. 1922a: 641; Donisthorpe, 1943c: 621; Brown, 1953b: 11; all subsequent authors.

Junior synonyms of **AMBLIOPONE**

Stigmatomma Roger, 1859: 250. Type-species: *Stigmatomma denticulatum*, by subsequent designation of Bingham, 1903: 36.

Taxonomic history

Stigmatomma in Ponerinae: Mayr, 1861: 53 [Poneridae]; Mayr, 1862: 714 [Poneridae]; Mayr, 1865: 16 [Poneridae]; Dalla Torre, 1893: 14.

Stigmatomma in Amblyoponinae: Forel, 1893a: 162; Forel, 1895a: 110 [Amblyoponeridae]

Stigmatomma in Pachycondyliinae, Amblyoponini: Ashmead, 1905b: 283.

Stigmatomma in Ponerinae, Amblyoponini: Emery, 1895e: 766; Emery, 1901a: 34; Wheeler, W.M. 1910d: 134; Emery, 1911b: 23; Forel, 1917: 235; Wheeler, W.M. 1922a: 641.

Stigmatomma as subgenus of *Amblyopone*: Forel, 1900b: 55; Clark, 1934b: 27; Brown, 1949c: 87.

Stigmatomma as genus: Roger, 1859: 250; Dalla Torre, 1893: 14; Emery, 1895e: 766; Bingham, 1903: 36; Emery, 1911b: 23; Forel, 1917: 235; Wheeler, W.M. 1922a: 641; Borgmeier, 1923: 52; Donisthorpe, 1943d: 728; Creighton, 1950a: 31; Kusnezov, 1956: 12.

Stigmatomma as junior synonym of *Amblyopone*: Emery & Forel, 1879: 455; Mayr, 1887: 546; Brown, 1960a: 155.

Arotropus Provancher, 1881: 205. Type-species: *Arotropus binodosus* (junior synonym of *Amblyopone pallipes*), by monotypy.

Taxonomic history

Arotropus as junior synonym of *Amblyopone*: Provancher, 1887: 240; Brown, 1960a: 155.

Amblyopopone Dalla Torre, 1893: 13, unjustified emendation of *Amblyopone*.

Taxonomic history

Amblyopopone as junior synonym of *Amblyopone*: Forel, 1893a: 166; Emery, 1911b: 25.

Amblyopopona Schulz, W.A. 1906: 154, unjustified emendation of *Amblyopone*.

Taxonomic history

Amblyopopona as junior synonym of *Amblyopone*: Bolton, 1994: 164.

Xymmer Santschi, 1914b: 311 [as subgenus of *Stigmatomma*]. Type-species: *Stigmatomma (Xymmer) muticum*, by monotypy.

Taxonomic history

Xymmer as subgenus of *Stigmatomma*: Santschi, 1914b: 311; Forel, 1917: 235; Emery, 1919b: 106; Donisthorpe, 1943d: 737.

Xymmer as genus: Wheeler, W.M. 1922a: 641 (in key).

Xymmer as subgenus of *Amblyopone*: Clark, 1934b: 27.

Xymmer as junior synonym of *Stigmatomma*: Brown, 1949c: 87.

Fulakora Mann, 1919: 279 [as subgenus of *Stigmatomma*]. Type-species: *Stigmatomma (Fulakora) celata*, by original designation.

Taxonomic history

Fulakora as junior synonym of *Stigmatomma*: Brown, 1949c: 88.

Neoamblyopone Wheeler, W.M. 1927a: 1 [as subgenus of *Amblyopone*]. Type-species: *Amblyopone (Neoamblyopone) clarki*, by monotypy.

Taxonomic history

Neoamblyopone as junior synonym of *Amblyopone*: Brown, 1949c: 87; Brown, 1960a: 155.

Protamblyopone Wheeler, W.M. 1927a: 1 [as subgenus of *Amblyopone*]. Type-species: *Amblyopone (Protamblyopone) aberrans*, by monotypy.

Taxonomic history

Protamblyopone as junior synonym of *Amblyopone*: Brown, 1949c: 87; Brown, 1960a: 155.

Lithomyrmex Clark, 1928: 30. Type-species: *Lithomyrmex glauerti*, by original designation.

Taxonomic history

Lithomyrmex in Ponerinae, Amblyoponini: Clark, 1928: 30.

Lithomyrmex as junior synonym of *Amblyopone*: Brown, 1960a: 156.

Ericapelia Kusnezov, 1955: 273. Type-species: *Ericapelia egregia*, by monotypy.

Taxonomic history

Ericapelia as junior synonym of *Amblyopone*: Brown, 1960a: 156.

Genus references

Roger, 1863b: 20 (catalogue); Mayr, 1863: 394, 454 (catalogue); Mayr, 1865: 16 (*Amblyopone*, *Stigmatomma* diagnoses); André, 1882c: 233 (Europe & Algeria species key); Cresson, 1887: 259 (U.S.A. catalogue); Dalla Torre, 1893: 13, 14 (*Amblyopone*, *Stigmatomma* catalogues); Forel, 1900b: 55 (India & Sri

Lanka species key); Bingham, 1903: 37 (India, Sri Lanka & Burma *Stigmatomma* species key); Emery, 1911b: 23 (*Stigmatomma* diagnosis, catalogue); Emery, 1911b: 25 (diagnosis, catalogue); Santschi, 1915a: 55 (Mediterranean species key); Emery, 1916b: 100 (Italy species key); Bondroit, 1918: 80 (France & Belgium species key); Wheeler, W.M. 1922a: 758 (Afrotropical catalogue); Wheeler, W.M. 1927a: 3 (Austral & New Guinea species key); Chapman & Capco, 1951: 22, 24 (Asia *Amblyopone*, *Stigmatomma* checklists); Brown, 1958c: 11 (New Zealand species); Brown, 1960a: 155, 191 (diagnosis & review of genus, New World species key); Kempf, 1972a: 19 (Neotropical catalogue); Baroni Urbani, 1978a: 41 (Mediterranean species key); Smith, D.R. 1979: 1334 (North America catalogue); Taylor, 1979: 824 (Melanesia species key); Taylor & Brown, D.R. 1985: 18 (Australia catalogue); Taylor, 1987a: 6 (Australia, New Caledonia & New Zealand checklist); Agosti & Collingwood, 1987: 264 (Balkans species key); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Morisita, Kubota, Onoyama, *et al.*, 1989: 8 (Japan species key); Terayama, 1989b: 345 (Taiwan species key); Tinaut, 1990b: 189 (Iberian Peninsula species); Dlussky, Soyunov & Zabelin, 1990: 173 (Turkmenistan species key); Lattke, 1991b: 6 (New World species key); Atanasov & Dlussky, 1992: 61 (Bulgaria species key); Bolton, 1995a: 1047 (census); Bolton, 1995b: 61 (catalogue); Onoyama, 1999: 190 (Japan species key); Shattuck, 1999: 179 (Australia synopsis); Xu, 2001d: 552 (East & South Asia species key); Lacau & Delabie, 2002: 40 (Neotropical species key).

Genus *BANNAPONE*

Bannapone Xu, 2000b: 299. Type-species: *Bannapone mulanae*, by original designation.

Taxonomic history

Bannapone in Ponerinae, Amblyoponini: Xu, 2000b: 297.

Genus **CASALEIA*

**Casaleia* Pagliano & Scaramozzino, 1990: 5.

Taxonomic history

[Replacement name for **Protamblyopone* Dlussky, 1981: 65; junior homonym of *Protamblyopone* Wheeler, W.M. 1927a: 1 (Formicidae).]

**Casaleia* in Ponerinae, Amblyoponini: Bolton, 1994: 164; Bolton, 1995b: 134.

Homonym replaced by **CASALEIA*

**Protamblyopone* Dlussky, 1981: 65. Type-species: **Protamblyopone inversa*, by original designation.

Taxonomic history

[Junior homonym of *Protamblyopone* Wheeler, W.M. 1927a: 1 (Formicidae).]

**Protamblyopone* in Ponerinae, Amblyoponini: Dlussky, 1981: 65; Hölldobler & Wilson, 1990: 10.

Genus *CONCOCTIO*

Concoctio Brown, 1974d: 29. Type-species: *Concoctio concentra*, by original designation.

Taxonomic history

Concoctio in Ponerinae, Amblyoponini: Brown, 1974c: 30; Bolton, 1995b: 146.

Genus *MYOPOPONE*

Myopopone Roger, 1861a: 49. Type-species: *Myopopone maculata* (junior synonym of *Myopopone castanea*), by subsequent designation of Bingham, 1903: 33.

Taxonomic history

Myopopone in Ponerinae: Mayr, 1862: 714 [Poneridae]; Mayr, 1865: 16 [Poneridae]; Dalla Torre, 1893: 15.

Myopopone in Amblyoponinae: Forel, 1893a: 162.

Myopopone in Pachycondylinae, Amblyoponini: Ashmead, 1905b: 283.

Myopopone in Ponerinae, Amblyoponini: Emery, 1895e: 766; Emery, 1901a: 34; Wheeler, W.M. 1910d: 134; Emery, 1911b: 26; Forel, 1917: 235; Wheeler, W.M. 1922a: 641; all subsequent authors.

Genus references

Roger, 1863b: 20 (catalogue); Mayr, 1865: 16 (diagnosis); Mayr, 1867a: 90 (diagnosis); Dalla Torre, 1893: 15 (catalogue); Bingham, 1903: 33 (India, Sri Lanka & Burma species key); Emery, 1911b: 26 (diagnosis, catalogue); Chapman & Capco, 1951: 22 (Asia checklist); Brown, 1960a: 170 (review of genus); Taylor & Brown, D.R. 1985: 35 (Australia catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 270 (catalogue); Shattuck, 1999: 191 (Australia synopsis).

Genus *MYSTRIMUM*

Mystrium Roger, 1862a: 245. Type-species: *Mystrium mysticum*, by monotypy.

Taxonomic history

Mystrium in Ponerinae: Mayr, 1862: 715 [Poneridae]; Mayr, 1865: 16 [Poneridae]; Dalla Torre, 1893: 15.

Mystrium in Amblyoponinae: Forel, 1893a: 162.

Mystrium in Pachycondylinae, Amblyoponini: Ashmead, 1905b: 283.

Mystrium in Ponerinae, Amblyoponini: Emery, 1895e: 766; Emery, 1901a: 34; Wheeler, W.M. 1910d: 134; Emery, 1911b: 22; Forel, 1917: 235; Wheeler, W.M. 1922a: 640; all subsequent authors.

Genus references

Roger, 1863b: 20 (catalogue); Mayr, 1863: 436 (catalogue); Mayr, 1865: 16 (diagnosis); Dalla Torre, 1893: 15 (catalogue); Emery, 1911b: 22 (diagnosis, catalogue); Wheeler, W.M. 1922a: 758, 1006 (Afrotropical, Malagasy catalogues); Menozzi, 1929: 518 (diagnosis, all species revision, key); Brown, 1960a: 169 (review

of genus); Taylor & Brown, D.R. 1985: 35 (Australia catalogue); Taylor, 1987a: 47 (Australia checklist); Bolton, 1995a: 1051 (census); Bolton, 1995b: 287 (catalogue); Gronenberg, Hölldobler & Alpert, 1998: 241 (mandible morphology); Shattuck, 1999: 192 (Australia synopsis).

Genus *ONYCHOMYRMEX*

Onychomyrmex Emery, 1895c: 349. Type-species: *Onychomyrmex hedleyi*, by monotypy.

Taxonomic history

Onychomyrmex in Ponerinae, Onychomyrmecini: Ashmead, 1905b: 382.

Onychomyrmex in Ponerinae, Ponerini: Wheeler, W.M. 1910d: 135; Emery, 1911b: 96 [subtribe Onychomyrmecini]; Donisthorpe, 1943c: 678 (anachronism).

Onychomyrmex in Ponerinae, Amblyoponini: Forel, 1917: 235; Brown, 1960a: 178; all subsequent authors.

Genus references

Emery, 1911b: 96 (diagnosis, catalogue); Wheeler, W.M. 1916a: 46 (diagnosis, species); Brown, 1960a: 178, 180 (review of genus, key); Taylor & Brown, D.R. 1985: 36 (Australia catalogue); Taylor, 1987a: 50 (Australia checklist); Bolton, 1995a: 1051 (census); Bolton, 1995b: 300 (catalogue); Shattuck, 1999: 195 (Australia synopsis).

Genus *PRIONOPELTA*

Prionopelta Mayr, 1866a: 503. Type-species: *Prionopelta punctulata*, by monotypy.

Taxonomic history

Prionopelta in Ponerinae: Dalla Torre, 1893: 15.

Prionopelta in Amblyoponinae: Forel, 1893a: 162; Forel, 1895a: 110 [Amblyoponeridae].

Prionopelta in Ponerinae, Proceratiini: Ashmead, 1905b: 382.

Prionopelta in Ponerinae, Ectatommini: Emery, 1911b: 32 [subtribe Typhlomyrmecini]; Forel, 1917: 236; Wheeler, W.M. 1922a: 642.

Prionopelta in Ponerinae, Amblyoponini: Emery, 1895e: 766; Wheeler, W.M. 1910d: 134; Brown, 1953b: 11; Brown, 1960a: 173; all subsequent authors.

Junior synonyms of *PRIONOPELTA*

Renea Donisthorpe, 1947b: 183. Type-species: *Renea testacea* (junior synonym of *Prionopelta majuscula*), by original designation.

Taxonomic history

Renea as genus: Donisthorpe, 1947b: 183; Chapman & Capco, 1951: 77.

Renea as junior synonym of *Prionopelta*: Brown, 1953b: 11.

Examblyopone Donisthorpe, 1949d: 401. Type-species: *Examblyopone churchilli* (junior synonym of *Prionopelta majuscula*), by original designation.

Taxonomic history

Examblyopone as junior synonym of *Prionopelta*: Brown, 1951: 102.

Genus references

Dalla Torre, 1893: 15 (catalogue); Forel, 1909a: 242 (New World species key); Emery, 1911b: 32 (diagnosis, catalogue); Chapman & Capco, 1951: 26 (Asia checklist); Wilson, 1958a: 146 (Melanesia species key); Brown, 1960a: 173, 218, 221 (review of genus, Neotropical species key, Indo-Australian species key); Kempf, 1972a: 210 (Neotropical catalogue); Smith, D.R. 1979: 1335 (North America catalogue); Taylor & Brown, D.R. 1985: 39 (Australia catalogue); Taylor, 1987a: 64 (Australia & New Caledonia checklist); Bolton, 1995a: 1052 (census); Bolton, 1995b: 364 (catalogue); Shattuck, 1999: 201 (Australia synopsis).

Genus *incertae sedis* in Amblyoponinae

Genus *PARAPRIONOPELTA*

Paraprionopelta Kusnezov, 1955: 270. Type-species: *Paraprionopelta minima*, by monotypy.

Taxonomic history

Paraprionopelta incertae sedis in Ponerinae, Amblyoponini: Brown, 1960a: 181.

Paraprionopelta incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Paraprionopelta in Ponerinae, Amblyoponini: Kempf, 1972a: 181; Jaffe, 1993: 7; Bolton, 1994: 164; Bolton, 1995b: 312.

Paraprionopelta as junior synonym of *Amblyopone*: Brown, 1973b: 183 [provisional].

Genus references

Brown, 1960a: 181 (review of genus).

SUBFAMILY PONERINAE

Subfamily PONERINAE

Ponérites Lepeletier de Saint-Fargeau, 1835: 185. Type-genus: *Ponera*.

Taxonomic history

Ponerinae as group name: Lepeletier de Saint-Fargeau, 1835: 185 [Ponérites].

Ponerinae as family: Smith, F. 1851: 6 [Poneridae]; Smith, F. 1858b: 76 [Poneridae]; Smith, F. 1861: 44 [Poneridae]; Smith, F. 1871: 320 [Poneridae]; André, 1882a: 125 [Poneridae]; Cresson, 1887: 93

[Poneridae]; Emery, 1894b: 379 [Poneridae]; Saunders, 1896: 18 [Poneridae]; Ashmead, 1905b: 382 [Poneridae]; Novák & Sadil, 1941: 70 [Poneridae]; Bernard, 1951: 1042 [Poneridae]; Bernard, 1953: 185 [Poneridae].

Ponerinae as tribe of Formicidae: André, 1874: 167 [Poneridae].

Ponerinae as subfamily of Poneridae: Ashmead, 1905b: 382.

Ponerinae as subfamily of Formicidae: Mayr, 1855: 289, 299 [Poneridae]; Mayr, 1861: 21 [Poneridae]; Mayr, 1862: 712 [Poneridae]; Smith, F. 1857: 64 [Poneridae]; Smith, F. 1862b: 31 [Poneridae]; Mayr, 1865: 11 [Poneridae]; Mayr, 1868b: 24 [Poneridae]; Forel, 1870: 307 [Poneridae]; Forel, 1874: 21 [Poneridae]; Emery, 1877a: 70 [Poneridae]; Forel, 1878: 366 [Poneridae]; Emery & Forel, 1879: 455 [Poneridae]; André, 1881: 64 [Poneridae]; Forel, 1892g: 220 [Poneridae]; Dalla Torre, 1893: 13; Forel, 1893a: 162; Forel, 1895a: 111 [Poneridae]; Nasonov, 1889: 27 [Poneridae]; Emery, 1895e: 766 [subfamily spelled Ponerini]; Emery, 1896b: 176; Forel, 1899: 2; Emery, 1901a: 36; Bingham, 1903: 23; Wheeler, W.M. 1910d: 134; Emery, 1911b: 2; Wheeler, 1915g: 805 [Ponerides]; Donisthorpe, 1915: 65; Wheeler, W.M. 1915e: 25; Arnold, 1915: 9; Escherich, 1917: 2 [Ponerini]; Forel, 1917: 235; Bondroit, 1918: 78 [Poneritae]; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 56, 632, 640; Borgmeier, 1923: 37; Karavaiev, 1934: 49; Clark, 1951: 15; Brown, 1954b: 24; Wheeler, G.C. & Wheeler, J. 1972: 39; Brown, 1973b: 165; all subsequent authors. [*Taxonomy*, p. 42.]

Tribes: Platythyreini, Ponerini, Thaumatomyrmecini.

Subfamily references, world

Smith, F. 1858b: 76 (diagnosis); Mayr, 1862: 712 (genera key); Mayr, 1865: 11 (Odontomachidae, Poneridae diagnoses); Mayr, 1867a: 79, 81 (Odontomachidae, Poneridae diagnoses); Forel, 1878: 366 (diagnosis); Dalla Torre, 1893: 13 (world catalogue); Emery, 1895e: 766 (diagnosis); Emery, 1896b: 176 (genera key); Handlirsch, 1907: 879 (*fossil taxa catalogue); Wheeler, W.M. 1910d: 134 (diagnosis); Emery, 1911b: 3 (diagnosis, tribes key); Forel, 1917: 235 (synoptic classification); Forel, 1921: 133 (diagnosis); Wheeler, W.M. 1922a: 56, 636 (diagnosis, tribes key); Brown & Nutting, 1950: 124 (venation, phylogeny); Brown, 1954b: 24 (phylogeny); Eisner, 1957: 475 (proventriculus morphology); Bernard, 1967: 79 (diagnosis); Gotwald, 1969: 25 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 39 (diagnosis); Brown, 1973b: 165 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 48 (larvae, review & synthesis); Snelling, 1981: 387 (synoptic classification); Wheeler, G.C. & Wheeler, J. 1985: 256 (synoptic classification); Billen, 1986: 168 (Dufour's gland); Fanfani & Dazzini Valcurone, 1986: 115 (exocrine glands synopsis); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Hölldobler & Wilson, 1990: 9 onward (synoptic classification, genera keys); Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 153 (diagnosis, synoptic classification, genera keys); Bolton, 1995a: 1042 (census); Bolton, 1995b: 14 (catalogue); Grimaldi, Agosti & Carpenter, 1997: 20 (*Cretaceous genera).

Regional and national faunas with keys

Mayr, 1861: 28 (Europe); Mayr, 1868b: 69 (*Baltic Amber); André, 1874: 170 (Europe); Forel, 1874: 29 (Switzerland); André, 1882b: 227 (Europe & Algeria); Cresson, 1887: 97 (U.S.A., genera); Provancher, 1887: 238 (Canada); Nasonov, 1889: 54 (Russia); Forel, 1891b: 9 (Madagascar genera); Forel, 1900b: 52 (India & Sri Lanka); Bingham, 1903: 23 (India, Sri Lanka & Burma); Ruzsky, 1905: 108 (Russian Empire); Wheeler, W.M. 1910d: 557 (North America genera); Bondroit, 1910: 489 (Belgium); Stitz, 1914: 54 (Central Europe); Gallardo, 1915: 31 (Argentina genera); Forel, 1915c: 6 (Switzerland); Arnold, 1915: 10 (South Africa); Donisthorpe, 1915: 65 (Britain); Emery, 1916b: 98 (Italy); Wheeler, W.M. 1916g: 580 (U.S.A., Connecticut); Bondroit, 1918: 79 (France & Belgium); Gallardo, 1918: 4 (Argentina); Soudek, 1922: 18 (Czechoslovakia); Stärcke, 1926: 82 (Netherlands); Donisthorpe, 1927: 68 (Britain); Menozzi & Russo, 1930: 169 (Dominican Republic); Arnol'di, 1933b: 596 (Russia); Karavaiev, 1934: 50 (Ukraine); Smith, M.R. 1937: 823 (Puerto Rico); Stitz, 1939: 58 (Germany); Smith, M.R. 1943b: 278 (U.S.A. males); Buren, 1944: 279 (U.S.A., Iowa); Smith, M.R. 1947c: 530 (U.S.A. genera); Creighton, 1950a: 31 (North America); Kusnezov, 1956: 11 (Argentina); Brown, 1958c: 11 (New Zealand); Gregg, 1963: 280 (U.S.A., Colorado); Bernard, 1967: 80 (Western Europe); Wilson & Taylor, 1967: 10 (Polynesia); Kempf, 1972a: 262 (Neotropical synoptic classification); Bolton, 1973a: 323 (West Africa genera); Bolton & Collingwood, 1975: 3 (Britain); Boven, 1977: 66 (Belgium); Kutter, 1977b: 21 (Switzerland); Arnol'di & Dlussky, 1978: 522 (former European U.S.S.R.); Collingwood, 1978: 74 (Iberian Peninsula); Collingwood, 1979: 29 (Fennoscandia & Denmark); Greenslade, 1979: 14 (South Australia genera); Francoeur, 1979: 30 (Canada, Québec); Schembri & Collingwood, 1981: 417 (Malta); Allred, 1982: 438 (U.S.A., Utah); Baroni Urbani, 1984: 75 (Neotropical genera); Collingwood, 1985: 236 (Saudi Arabia); Wheeler, G.C. & Wheeler, J. 1986b: 17 (U.S.A., Nevada); Agosti & Collingwood, 1987: 264 (Balkans); Ogata, 1987: 101 (Japan genera); Morisita, Kubota, Onoyama, *et al.*, 1989: 8 (Japan); Dlussky, Soyunov & Zabelin, 1990: 173 (Turkmenistan); Kupyanskaya, 1990: 85 (Far Eastern Russia); Atanasov & Dlussky, 1992: 51 (Bulgaria); Latke, in Jaffe, 1993: 166 (Neotropical genera); Arakelian, 1994: 10 (Armenia); Wu, J. & Wang, 1995: 31 (China genera); Collingwood & Agosti, 1996: 308 (Saudi Arabia); Seifert, 1996: 107 (Central Europe); Collingwood & Prince, 1998: 10 (Portugal); Kim, Kim & Kim, 1998: 145 (Korea); Shattuck, 1999: 52, 179 (Australia genera synopsis); Andersen, 2000: 19 (northern Australia genera); Zhou, 2001: 22 (China, Guangxi); Czechowski, Radchenko & Czechowska, 2002: 133 (Poland); Aktaş & Radchenko, 2002: 53 (Turkey genera); Yoshimura & Onoyama, 2002: 436 (Japan genera, males key); Imai, Kihara, Kondoh *et al.* 2003: 211 (Japan).

Tribe PONERINI

Ponérites Lepeletier de Saint-Fargeau, 1835: 185. Type-genus: *Ponera*.

Taxonomic history

Ponerini as group name: Lepeletier de Saint-Fargeau, 1835: 185 [Ponérites].

Ponerini as tribe of Poneridae: Forel, 1895a: 111 [Poneri].

Ponerini as tribe of Ponerinae: Forel, 1893a: 163 [Ponerii]; Emery, 1895e: 767 [Ponerii]; Forel, 1899: 2 [Ponerii]; Emery, 1901a: 36 [Ponerii]; Wheeler, W.M. 1910d: 135 [Ponerii]; Ashmead, 1905b: 382; Emery, 1911b: 54; Wheeler, W.M. 1915e: 27; Arnold, 1915: 36; Forel, 1917: 237; Gallardo, 1918: 7; Wheeler, W.M. 1922a: 638, 646; all subsequent authors. [*Taxonomy*, p. 43.]

Junior synonyms of PONERINI

Odontomachidae Mayr, 1862: 708. Type-genus: *Odontomachus*.

Taxonomic history

Odontomachidae as subfamily of Formicidae: Mayr, 1862: 708 [Odontomachidae]; Mayr, 1865: 11 [Odontomachidae]; Clark, 1951: 15 (in key) [Odontomachinae].

Odontomachidae as family: Smith, F. 1871: 319; Cresson, 1887: 93; Ashmead, 1905b: 382.

Odontomachidae as tribe of Ponerinae: Forel, 1893a: 163 [Odontomachii]; Forel, 1895a: 117 [Odontomachii]; Emery, 1895e: 768 [Odontomachii]; Forel, 1899: 18 [Odontomachii]; Forel, 1900b: 57 [Odontomachii]; Emery, 1901a: 36 [Odontomachii]; Wheeler, W.M. 1910d: 135 [Odontomachii]; Emery, 1911b: 106 [Odontomachini]; Forel, 1917: 238 [Odontomachini]; Gallardo, 1918: 6 [Odontomachini]; Wheeler, W.M. 1922a: 636 [Odontomachini]; Chapman & Capco, 1951: 39 [Odontomachini]; Wilson, 1959a: 483 [Odontomachini]; Kusnezov, 1964: 53 [Odontomachini]; Wheeler, G.C. & Wheeler, J. 1976: 51 [Odontomachini]; Smith, D.R. 1979: 1344 [Odontomachini]; Wheeler, G.C. & Wheeler, J. 1985: 256 [Odontomachini]; Dlussky & Fedoseeva, 1988: 78 [Odontomachini]; Hölldobler & Wilson, 1990: 11 [Odontomachini]; Jaffe, 1993: 8 [Odontomachini].

Odontomachidae as subtribe of Ponerini: Brown, 1976a: 71 [Odontomachiti].

Odontomachidae as junior synonym of Ponerini: Emery & Forel, 1879: 455; Bolton, 1994: 164; Bolton, 1995b: 14.

Leptogenysii Forel, 1893a: 162. Type-genus: *Leptogenys*.

Taxonomic history

Leptogenysii as tribe of Ponerinae: Forel, 1893a: 162; Emery, 1895e: 761 [Leptogenyi]; Forel, 1899: 17 [Leptogenyi]; Emery, 1901a: 36 [Leptogenyi]; Ashmead, 1905b: 382 [Leptogenyini]; Emery, 1911b: 97 [Leptogenyini]; Arnold, 1915: 88 [Leptogenyini]; Forel, 1917: 238 [Leptogenyini]; Gallardo, 1918: 6 [Leptogenyini]; Wheeler, W.M. 1922a: 636 [Leptogenyini]; Arnold, 1926: 209 [Leptogenyini]; Bernard, 1953: 210 [Leptogenyini]; Kusnezov, 1964: 53 [Leptogenyini]; Dlussky & Fedoseeva, 1988: 78 [Leptogenyini].

Leptogenysii as junior synonym of Ponerini: Brown, 1963: 3; Bolton, 1994: 164; Bolton, 1995b: 12.

Harpegnathii Forel, 1900b: 63. Type-genus: *Harpegnathos*.

Taxonomic history

Harpegnathii as tribe of Ponerinae: Forel, 1900b: 63.

Harpegnathii as subtribe of Ponerini: Emery, 1911b: 58 [Harpegnathini]; Forel, 1917: 237 [Harpegnathini].

Harpegnathii as junior synonym of Ponerini: Bolton, 1994: 164.

Drepanognathini Ashmead, 1905b: 382. Type-genus: *Drepanognathus* (junior synonym of *Harpegnathos*).

Taxonomic history

Drepanognathini as tribe of Pachycondyliinae: Ashmead, 1905b: 382.

Drepanognathini as junior synonym of Harpegnathini: Emery, 1911b: 58.

Drepanognathini as junior synonym of Ponerini: Bolton, 1994: 164.

Pachycondyliinae Ashmead, 1905b: 382. Type-genus: *Pachycondyla*.

Taxonomic history

Pachycondyliinae as subfamily of Poneridae: Ashmead, 1905b: 382.

Pachycondyliinae as subtribe of Ponerini: Emery, 1911b: 59 [Pachycondylini]; Forel, 1917: 237 [Pachycondylini].

Pachycondyliinae as junior synonym of Ponerini: Bolton, 1994: 164.

Euponerinae Emery, 1909c: 355. Type-genus: *Euponera* (junior synonym of *Pachycondyla*).

Taxonomic history

Euponerinae as group of Ponerinae: Emery, 1909c: 355.

Euponerinae tribe of Ponerinae: Donisthorpe, 1943c: 626 [Euponerini].

Euponerinae as junior synonym of Ponerini: Bolton, 1994: 164.

Centromyrmecini Emery, 1911b: 57. Type-genus: *Centromyrmex*.

Taxonomic history

Centromyrmecini as subtribe of Ponerini: Emery, 1911b: 57; Forel, 1917: 237.

Centromyrmecini as tribe of Ponerinae: Bernard, 1953: 186.

Centromyrmecini as junior synonym of Ponerini: Brown, 1953b: 9.

Plectroctenini Emery, 1911b: 92. Type-genus: *Plectroctena*.

Taxonomic history

Plectroctenini as subtribe of Ponerini: Emery, 1911b: 92; Forel, 1917: 238.

Plectroctenini as junior synonym of Ponerini: Bolton, 1994: 164.

Dorylozelini Wheeler, W.M. 1922a: 646. Type-genus: *Dorylozelus* (junior synonym of *Leptogenys*).

Taxonomic history

- Dorylozelini as tribe of Ponerinae: Wheeler, W.M. 1922a: 646.
 Dorylozelini as junior synonym of Ponerini: Taylor, 1969: 132.
 Pseudoneoponerini Chapman & Capco, 1951: 77 (attributed to Donisthorpe). Type-genus: *Pseudoneoponera* (junior synonym of *Bothroponera*). **Syn. n.**
 Taxonomic history
 Pseudoneoponerini as tribe of Ponerinae: Chapman & Capco, 1951: 77.
 *Archiponerini Dlussky & Fedoseeva, 1988: 78. Type-genus: **Archiponera*.
 Taxonomic history
 *Archiponerini as tribe of Ponerinae: Dlussky & Fedoseeva, 1988: 78.
 *Archiponerini as junior synonym of Ponerini: Bolton, 1994: 164.
 Genera (extant): *Anochetus*, *Asphinctopone*, *Belonopelta*, *Centromyrmex*, *Cryptopone*, *Diacamma*, *Dinoponera*, *Dolioponera*, *Emeryopone*, *Harpegnathos*, *Hypoponera*, *Leptogenys*, *Loboponera*, *Myopias*, *Odontomachus*, *Odontoponera*, *Pachycondyla*, *Phrynoponera*, *Plectroctena*, *Ponera*, *Psalidomyrmex*, *Simopelta*, *Streblognathus*.
 Genera (extinct) *incertae sedis*: **Archiponera*, **Poneropsis*, **Protopone*.

Tribe references

Emery, 1895e: 767, 768 (Ponerini, Odontomachini diagnoses); Wheeler, W.M. 1910d: 135 (diagnosis); Emery, 1911b: 54 (Ponerini diagnosis, subtribe & genera key); Emery, 1911b: 57, 58, 59, 87, 92 (subtribes Centromyrmecini, Harpegnathini, Pachycondyliini, Ponerini & Plectroctenini, diagnoses); Emery, 1911b: 97, 106 (tribes Leptogenyini, Odontomachini, diagnoses); Arnold, 1915: 36 (South Africa genera key); Arnold, 1915: 88, 102 (Leptogenyini, Odontomachini diagnoses); Forel, 1917: 237 (synoptic classification); Gallardo, 1918: 46 (Argentina, key); Wheeler, W.M. 1922a: 632, 652, 653 (Ponerini, Leptogenyini & Odontomachini, genera keys); Wheeler, W.M. 1922a: 762, 786, 790 (Afrotropical Ponerini, Leptogenyini & Odontomachini catalogues); Wheeler, W.M. 1922a: 1007 (Malagasy Ponerini, Leptogenyini & Odontomachini catalogues); Brown, 1976a: 71, 96 (Odontomachiti diagnosis, genera key); Wheeler, G.C. & Wheeler, J. 1976: 50, 51 (Ponerini, Odontomachini larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Hölldobler & Wilson, 1990: 10 (synoptic classification); Brandão, 1991: 389 (Neotropical, synoptic classification); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1042 (census); Bolton, 1995b: 15 (catalogue); Hölldobler, Obermayer & Peeters, 1996: 159 (metatibial gland); Bolton & Brown, 2002: 2 (*Plectroctena* genus group).

Genera of Ponerini

Genus *ANOCHETUS*

Anochetus Mayr, 1861: 53. Type-species: *Odontomachus ghilianii*, by monotypy.

Taxonomic history

Anochetus in Formicidae, Odontomachidae: Mayr, 1862: 712; Mayr, 1865: 11.
Anochetus in Odontomachidae: Ashmead, 1905b: 382.
Anochetus in Ponerinae: Mayr, 1861: 53 [Poneridae]; Emery & Forel, 1879: 455 [Poneridae]; Dalla Torre, 1893: 47.
Anochetus in Ponerinae, Odontomachini: Forel, 1893a: 163; Emery, 1895e: 768; Forel, 1899: 18; Wheeler, W.M. 1910d: 136; Emery, 1911b: 106; Arnold, 1915: 103; Forel, 1917: 238; Gallardo, 1918: 89; Wheeler, W.M. 1922a: 653; Donisthorpe, 1943c: 623; Chapman & Capco, 1951: 31; Wilson, 1959a: 483; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 11; Jaffe, 1993: 8.
Anochetus in Ponerinae, Ponerini: Brown, 1976a: 71; Brown, 1978c: 550 [subtribe Odontomachiti]; Bolton, 1994: 164.

Junior synonyms of *ANOCHETUS*

Stenomyrmex Mayr, 1862: 711. Type-species: *Myrmecia emarginata*, by subsequent designation of Wheeler, W.M. 1911b: 173.

Taxonomic history

Stenomyrmex in Formicidae, Odontomachidae: Mayr, 1862: 711; Mayr, 1865: 11.
Stenomyrmex in Odontomachidae: Ashmead, 1905b: 382.
Stenomyrmex as subgenus of *Anochetus*: Dalla Torre, 1893: 47; Forel, 1893a: 163; Dalla Torre, 1893: 47; Wheeler, W.M. 1910d: 136; Emery, 1911b: 110; Forel, 1917: 238; Wheeler, W.M. 1922a: 653; Borgmeier, 1923: 76; Donisthorpe, 1943d: 728; Kempf, 1972a: 21.
Stenomyrmex as junior synonym of *Anochetus*: Forel, 1887: 382; Brown, 1978c: 552.
Myrmapatetes Wheeler, W.M. 1929b: 6. Type-species: *Myrmapatetes filicornis*, by original designation.
 Taxonomic history
Myrmapatetes in Dolichoderinae: Wheeler, W.M. 1929b: 7; Chapman & Capco, 1951: 186.
Myrmapatetes as junior synonym of *Anochetus*: Brown, 1953d: 2.

Genus references

Roger, 1863b: 21, 22 (catalogue); Mayr, 1863: 394, 454 (catalogue); Mayr, 1865: 11 (*Anochetus*, *Stenomyrmex* diagnoses); André, 1882b: 230 (Europe & Algeria species); Emery, 1884: 378 (all species key); Dalla Torre, 1893: 47 (catalogue); Emery, 1894a: 185 (Neotropical species key); Forel, 1900b: 58 (India & Sri Lanka species key); Bingham, 1903: 39 (India, Sri Lanka & Burma species key); Emery, 1911b: 107 (diagnosis, catalogue); Arnold, 1915: 103 (South Africa species key); Gallardo, 1918: 90 (Argentina species key); Mann, 1919: 303 (New Guinea & Solomon Is species key); Wheeler, W.M. 1922a: 96, 790,

1012 (diagnosis, Afrotropical, Malagasy catalogues); Wheeler, W.M. 1925a: 9 (*Stenomyrmex* species key); Chapman & Capco, 1951: 39 (Asia checklist); Wilson, 1959a: 503 (Melanesia & Moluccas species, revision, key); Kempf, 1964c: 244 (A. (*Stenomyrmex*) species key); Kempf, 1972a: 20 (Neotropical catalogue); Brown, 1978c: 552, 565, 569, 571 (diagnosis & review of genus, Malesian species, Austral, Palaearctic, Afrotropical & Malagasy species, Neotropical species keys); Taylor & Brown, D.R. 1985: 20 (Australia catalogue); Taylor, 1987a: 7 (Australia checklist); Terayama, 1989a: 26 (Taiwan species key); Brandão, 1991: 324 (Neotropical catalogue); Wang, M. 1993: 226 (China species key); De Andrade, 1994: 24 (*Dominican Amber species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 63 (catalogue); Gronenberg & Ehmer, 1996: 183 (mandible morphology); Collingwood & Agosti, 1996: 309 (Saudi Arabia species key); Shattuck, 1999: 181 (Australia synopsis); Zhou, 2001: 29 (China, Guangxi species key).

Genus *ASPHINCTOPONE*

Asphinctopone Santschi, 1914b: 318. Type-species: *Asphinctopone silvestrii*, by monotypy.

Taxonomic history

Asphinctopone in Ponerinae, Euponerini: Donisthorpe, 1943c: 626.

Asphinctopone in Ponerinae, Ponerini: Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors; Bolton, 1994: 164.

Junior synonym of *ASPHINCTOPONE*

Lepidopone Bernard, 1953: 207. Type-species: *Lepidopone lamottei* (junior synonym of *Asphinctopone silvestrii*), by monotypy.

Taxonomic history

Lepidopone in Ponerinae, Ponerini: Bernard, 1953: 207.

Lepidopone as junior synonym of *Asphinctopone*: Brown, 1953d: 2.

Genus references

Wheeler, W.M. 1922a: 783 (catalogue); Dlussky & Fedoseeva, 1988: 78 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 75 (catalogue).

Genus *BELONOPELTA*

Belonopelta Mayr, 1870a: 374. Type-species: *Belonopelta attenuata*, by monotypy.

Taxonomic history

Belonopelta in Ponerinae: Dalla Torre, 1893: 43.

Belonopelta in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Belonopelta in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1895a: 116; Wheeler, W.M. 1910d: 135; Emery, 1911b: 87 [subtribe Ponerini]; Forel, 1917: 238; Wheeler, W.M. 1922a: 649; all subsequent authors.

Junior synonym of *BELONOPELTA*

Leiopelta Baroni Urbani, 1975b: 309. Type-species: *Belonopelta deletrix*, by original designation.

Taxonomic history

Leiopelta as junior synonym of *Belonopelta*: Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164; Bolton, 1995b: 33.

Genus references

Dalla Torre, 1893: 43 (catalogue); Emery, 1911b: 87 (diagnosis, catalogue); Wheeler, W.M. 1935d: 9 (all species key); Kempf, 1972a: 37 (catalogue); Baroni Urbani, 1975b: 298 (all species key); Brandão, 1991: 330 (catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue).

Genus *CENTROMYRMEX*

Centromyrmex Mayr, 1866b: 894. Type-species: *Centromyrmex bohemani* (junior synonym of *Centromyrmex brachycola*), by monotypy.

Taxonomic history

Centromyrmex in Poneridae: Mayr, 1866b: 894.

Centromyrmex in Ponerinae: Dalla Torre, 1893: 15.

Centromyrmex in Ponerinae, Ponerini: Forel, 1895a: 111; Forel, 1899: 2; Emery, 1901a: 35; Forel, 1900c: 303; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135; Emery, 1911b: 57 [subtribe Centromyrmicini]; Arnold, 1915: 38; Forel, 1917: 237; Wheeler, W.M. 1922a: 646; all subsequent authors except the following.

Centromyrmex incertae sedis in Ponerinae: Jaffe, 1993: 8 (in error?).

Junior synonyms of *CENTROMYRMEX*

Spalacomyrmex Emery, 1889: 489. Type-species: *Spalacomyrmex feae*, by monotypy.

Taxonomic history

Spalacomyrmex as junior synonym of *Centromyrmex*: Emery, 1890b: 40; Forel, 1900c: 303; Bingham, 1903: 93.

Glyphopone Forel, 1913b: 308. Type-species: *Glyphopone bequaerti*, by monotypy.

Taxonomic history

Glyphopone in Ponerinae, Ponerini: Arnold, 1916: 163; Forel, 1917: 237; Wheeler, W.M. 1922a: 647.

Glyphopone as junior synonym of *Centromyrmex*: Brown, 1963: 9.

Promyopias Santschi, 1914b: 323 [as subgenus of *Myopias*]. Type-species: *Myopias (Promyopias) silvestrii*, by monotypy.

Taxonomic history

- Promyopias* in Ponerinae, Ponerini: Forel, 1917: 238 [subtribe Plectroctenini]; Wheeler, W.M. 1922a: 649; Santschi, 1924a: 158; all subsequent authors.
Promyopias as subgenus of *Myopias*: Santschi, 1914b: 323; Forel, 1917: 238.
Promyopias as subgenus of *Pseudoponera*: Wheeler, W.M. 1922a: 649.
Promyopias as genus: Emery, 1915e: 26; Santschi, 1924a: 158; Brown, 1963: 10.
Promyopias as junior synonym of *Centromyrmex*: Brown, 1973b: 184 [provisional]; Bolton, 1994: 164.
Leptopone Arnold, 1916: 163 [as subgenus of *Glyphopone*]. Type-species: *Glyphopone (Leptopone) rufigaster* (junior synonym of *Centromyrmex bequaerti*), by original designation.

Taxonomic history

- Leptopone* in Ponerinae, Ponerini: Arnold, 1916: 163; Wheeler, W.M. 1922a: 647.
Leptopone as genus: Wheeler, W.M. 1922a: 647.
Leptopone as junior synonym of *Centromyrmex*: Brown, 1963: 9.
Typhloteras Karavaiev, 1925: 128. Type-species: *Typhloteras hamulatum*, by monotypy.

Taxonomic history

- Typhloteras* in Ponerinae, Ponerini: Donisthorpe, 1943d: 734; Chapman & Capco, 1951: 76.
Typhloteras as junior synonym of *Centromyrmex*: Brown, 1953b: 8.

Genus references

- Dalla Torre, 1893: 15 (catalogue); Bingham, 1903: 94 (diagnosis); Emery, 1911b: 57 (diagnosis, catalogue); Arnold, 1915: 38 (diagnosis); Wheeler, W.M. 1922a: 762, 766, 779 (Afrotropical *Centromyrmex*, *Glyphopone*, *Leptopone* & *Promyopias* catalogues); Chapman & Capco, 1951: 52, 76 (Asia *Centromyrmex*, *Typhloteras* checklists); Brown, 1963: 9 (review of genus); Kempf, 1967: 404 (Neotropical species key); Kempf, 1972a: 75 (Neotropical catalogue); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 139 (catalogue).

Genus CRYPTOPONE

- Cryptopone* Emery, 1893a: cclxxv. Type-species: *Cryptopone testacea*, by monotypy.

Taxonomic history

- [*Cryptopone* also described as new by Emery, 1893d: 240. Type-species not *Amblyopone testacea*, unjustified subsequent designation by Wheeler, W.M. 1911b: 161, repeated in Emery, 1911b: 88; Wheeler, W.M. 1922a: 780, Donisthorpe, 1943c: 636, Kempf, 1972a: 90 and Taylor & Brown, D.R. 1985: 28; see discussion in Wilson, 1958b: 360.]
Cryptopone in Ponerinae, Ponerini: Emery, 1895e: 767; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135; Emery, 1911b: 88 [subtribe Ponerini]; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Genus references

- Emery, 1911b: 88 (diagnosis, catalogue); Wheeler, W.M. 1922a: 780 (Afrotropical catalogue); Wheeler, W.M. 1933b: 5 (all species key); Chapman & Capco, 1951: 52 (Asia checklist); Wilson, 1958b: 357 (Melanesia & Moluccas species revision, key); Brown, 1963: 6 (review of genus); Kempf, 1972a: 90 (Neotropical catalogue); Smith, D.R. 1979: 1341 (North America catalogue); Taylor & Brown, D.R. 1985: 28 (Australia catalogue); Taylor, 1987a: 23 (Australia, New Caledonia checklist); Morisita, Kubota, Onoyama, *et al.*, 1989: 21 (Japan species key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 166 (catalogue); Collingwood & Agosti, 1996: 310 (Saudi Arabia species key); Shattuck, 1999: 182 (Australia synopsis); Zhou, 2001: 35 (China, Guangxi species key).

Genus DIACAMMA

- Diacamma* Mayr, 1862: 713 (diagnosis in key), 718. Type-species: *Ponera rugosa*, by subsequent designation of Bingham, 1903: 75.

Taxonomic history

- Diacamma* in Ponerinae: Mayr, 1862: 713 (in key) [Poneridae]; Mayr, 1865: 13 [Poneridae]; Dalla Torre, 1893: 28.
Diacamma in Ponerinae, Leptogenysii: Forel, 1893a: 162.
Diacamma in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.
Diacamma in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1900c: 317; Wheeler, W.M. 1910d: 135; Emery, 1911b: 64 [subtribe Pachycondyliini]; Forel, 1917: 237; Wheeler, W.M. 1922a: 647; all subsequent authors.

Genus references

- Roger, 1863b: 16 (catalogue); Mayr, 1863: 407 (catalogue); Mayr, 1865: 13 (diagnosis); Mayr, 1867a: 86 (diagnosis); Dalla Torre, 1893: 28 (catalogue); Emery, 1887b: 435, footnote (all species key); Emery, 1897a: 162 (all species key); Forel, 1900c: 317 (India & Sri Lanka species key); Bingham, 1903: 76 (India, Sri Lanka & Burma species key); Emery, 1911b: 64 (diagnosis, catalogue); Chapman & Capco, 1951: 53 (Asia checklist); Wilson, 1958b: 366 (Melanesia & Moluccas species revision, key); Taylor & Brown, D.R. 1985: 28 (Australia catalogue); Taylor, 1987a: 24 (Australia checklist); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 169 (catalogue); Shattuck, 1999: 183 (Australia synopsis).

Genus DINOPONERA

- Dinoponera* Roger, 1861a: 37. Type-species: *Ponera grandis* (junior synonym of *Dinoponera gigantea*), by monotypy.

Taxonomic history

Dinoponera in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 14 [Poneridae]; Dalla Torre, 1893: 31.

Dinoponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Dinoponera in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1895a: 113; Wheeler, W.M. 1910d: 135; Emery, 1911b: 63 [subtribe Pachycondylini]; Forel, 1917: 237; Wheeler, W.M. 1922a: 647; all subsequent authors.

Genus references

Roger, 1863b: 19 (catalogue); Mayr, 1863: 407 (catalogue); Mayr, 1865: 14 (diagnosis); Dalla Torre, 1893: 31 (catalogue); Emery, 1911b: 63 (diagnosis, catalogue); Kempf, 1971: 387 (all species revision, key); Kempf, 1972a: 96 (Neotropical catalogue); Brandão, 1991: 340 (catalogue); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 171 (catalogue).

Genus DOLIOPONERA

Dolioponera Brown, 1974e: 31. Type-species: *Dolioponera fustigera*, by original designation.

Taxonomic history

Dolioponera in Ponerinae, Ponerini: Brown, 1974e: 31; Bolton, 1995b: 177.

Genus EMERYOPONE

Emeryopone Forel, 1912g: 761. Type-species: *Emeryopone buttelreepeni*, by monotypy.

Taxonomic history

[*Emeryopone* also described as new by Forel, 1913d: 14.]

Emeryopone in Ponerinae, Ponerini: Forel, 1917: 238; all subsequent authors.

Emeryopone as junior synonym of *Belonopelta*: Baroni Urbani 1975b: 296; Hölldobler & Wilson, 1990: 10.

Emeryopone as genus: Brown, in Bolton, 1994: 164; Bolton, 1995b: 187.

Genus references

Baroni Urbani 1975b: 298 (all species key).

Genus HARPEGNATHOS

Harpegnathos Jerdon, 1851: 116. Type-species: *Harpegnathos saltator*, by monotypy.

Taxonomic history

Harpegnathos in Odontomachidae: Smith, F. 1871: 320.

Harpegnathos in Ponerinae, Ponerini: Wheeler, W.M. 1910d: 135; Emery, 1911b: 58 [subtribe Harpegnathini]; Forel, 1917: 237; Wheeler, W.M. 1922a: 646; all subsequent authors.

Harpegnathos as subgenus of *Drepanognathus*: Smith, F. 1871: 320.

Harpegnathos as junior synonym of *Drepanognathus*: Dalla Torre, 1893: 22 (error); Bingham, 1903: 49 (error).

Junior synonym of HARPEGNATHOS

Drepanognathus Smith, F. 1858b: 81. Type-species: *Harpegnathos saltator*, by subsequent designation of Bingham, 1903: 49.

Taxonomic history

[Unnecessary replacement name for *Harpegnathos*.]

Drepanognathus in Poneridae: Smith, F. 1858b: 81.

Drepanognathus in Odontomachidae: Smith, F. 1871: 320.

Drepanognathus in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 14 [Poneridae]; Dalla Torre, 1893: 22.

Drepanognathus in Pachycondyliinae, Drepanognathini: Ashmead, 1905b: 382.

Drepanognathus as junior synonym of *Harpegnathos*: Roger, 1861a: 32; Roger, 1863b: 22; Forel, 1893a: 166; Forel, 1900b: 63; Emery, 1911b: 58; all subsequent authors.

Genus references

Roger, 1863b: 22 (catalogue); Mayr, 1863: 408, 422 (catalogue); Mayr, 1865: 14 (diagnosis); Dalla Torre, 1893: 22 (catalogue); Forel, 1900b: 63 (India & Sri Lanka species key); Bingham, 1903: 50 (India, Sri Lanka & Burma species key); Emery, 1911b: 58 (diagnosis, catalogue); Chapman & Capco, 1951: 66 (Asia checklist); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 212 (catalogue).

Genus HYPOPONERA

Hypoponera Santschi, 1938: 79 [as subgenus of *Ponera*]. Type-species: *Ponera abeillei*, by original designation.

Taxonomic history

Hypoponera in Ponerinae, Ponerini: Donisthorpe, 1943c: 652; all subsequent authors.

Hypoponera as subgenus of *Ponera*: Santschi, 1938: 79.

Hypoponera as genus: Taylor, 1967: 9; all subsequent authors.

Genus references

[References prior to 1967, see under *PONERA*.]

Taylor, 1967: 9 (*Hypoponera* diagnosis, discussion); Kempf, 1972a: 121 (Neotropical catalogue); Alayo, 1974: 7 (Cuba species key); Kutter, 1977b: 24 (Switzerland species key); Arnol'di & Dlussky, 1978: 524 (former European U.S.S.R. species key); Smith, D.R. 1979: 1342 (North America catalogue); Taylor &

Brown, D.R. 1985: 31 (Australia catalogue); Taylor, 1987a: 29 (Australia, New Caledonia & New Zealand checklists); Agosti & Collingwood, 1987: 265 (Balkans species key); Morisita, Kubota, Onoyama, *et al.*, 1989: 25 (Japan species key); Dlussky, Soyunov & Zabelin, 1990: 176 (Turkmenistan species key); Brandão, 1991: 347 (Neotropical catalogue); Atanasov & Dlussky, 1992: 69 (Bulgaria species key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 213 (catalogue); Wu, J. & Wang, 1995: 40 (China species key); Collingwood & Agosti, 1996: 311 (Saudi Arabia species key); Kim, Kim & Kim, 1998: 148 (Korea species key); Shattuck, 1999: 187 (Australia synopsis).

Genus *LEPTOGENYS*

Leptogenys Roger, 1861a: 41. Type-species: *Leptogenys falcigera*, by subsequent designation of Bingham, 1903: 52.

Taxonomic history

Leptogenys in Ponerinae: Dalla Torre, 1893: 46; Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 14 [Poneridae].

Leptogenys in Ponerinae, Leptogenyini: Forel, 1893a: 162; Forel, 1899: 17; Ashmead, 1905b: 382; Emery, 1911b: 97; Arnold, 1915: 89; Forel, 1917: 238; Gallardo, 1918: 84; Wheeler, W.M. 1922a: 652; Donisthorpe, 1943c: 656; Chapman & Capco, 1951: 31; Dlussky & Fedoseeva, 1988: 78.

Leptogenys in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1900c: 304; Wheeler, W.M. 1910d: 135; Brown, 1963: 3; Kempf, 1972a: 129; Jaffe, 1993: 8; Bolton, 1994: 164.

Junior synonyms of *LEPTOGENYS*

Lobopelta Mayr, 1862: 714 (diagnosis in key), 733. Type-species: *Ponera diminuta*, by subsequent designation of Bingham, 1903: 54.

Taxonomic history

Lobopelta in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 15 [Poneridae]; Dalla Torre, 1893: 43.

Lobopelta in Ponerinae, Leptogenyini: Forel, 1893a: 162; Ashmead, 1905b: 382; Emery, 1911b: 101; Wheeler, W.M. 1922a: 653; Donisthorpe, 1943c: 658.

Lobopelta as genus: Mayr, 1862: 733; Cresson, 1887: 258; Dalla Torre, 1893: 43; Bingham, 1903: 54.

Lobopelta as subgenus of *Leptogenys*: Forel, 1892h: 520; Forel, 1899: 18; Forel, 1900c: 304; Wheeler, W.M. 1910d: 135; Emery, 1911b: 101; Arnold, 1915: 95; Forel, 1917: 238; Gallardo, 1918: 85; Wheeler, W.M. 1922a: 653; Wheeler, W.M. 1923a: 1; Borgmeier, 1923: 75; Creighton, 1950a: 50; Kempf, 1972a: 131; Smith, D.R. 1979: 1343 (anachronism).

Lobopelta as junior synonym of *Leptogenys*: Emery, 1896b: 177 (footnote); Brown, 1973b: 181 [provisional]; Bolton, 1975a: 240.

Prionogenys Emery, 1895c: 348. Type-species: *Prionogenys podenzanai*, by monotypy.

Taxonomic history

Prionogenys in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135;

Prionogenys in Ponerinae, Leptogenyini: Ashmead, 1905b: 382; Emery, 1911b: 106; Forel, 1917: 238; Wheeler, W.M. 1922a: 652; Donisthorpe, 1943c: 685; Dlussky & Fedoseeva, 1988: 78.

Prionogenys as junior synonym of *Leptogenys*: Taylor, 1988: 33.

Machaerogenys Emery, 1911b: 100 [as subgenus of *Leptogenys*]. Type-species: *Leptogenys truncatirostris*, by original designation.

Taxonomic history

Machaerogenys as subgenus of *Leptogenys*: Emery, 1911b: 100; Forel, 1917: 238; Wheeler, W.M. 1922a: 653; subsequent authors to the following.

Machaerogenys as junior synonym of *Leptogenys*: Brown, 1973b: 181 [provisional]; Bolton, 1975a: 240.

Odontopelta Emery, 1911b: 101 [as subgenus of *Leptogenys*]. Type-species: *Leptogenys turneri*, by monotypy.

Taxonomic history

Odontopelta as subgenus of *Leptogenys*: Emery, 1911b: 101; Forel, 1917: 238; Wheeler, W.M. 1922a: 653; Donisthorpe, 1943c: 677.

Odontopelta as junior synonym of *Leptogenys*: Brown, 1973b: 183 [provisional]; Snelling, 1981: 390; Taylor & Brown, D.R. 1985: 32.

Dorylozelus Forel, 1915a: 24. Type-species: *Dorylozelus mjobergi* (junior secondary homonym in *Leptogenys*, replaced by *Leptogenys tricola*), by monotypy.

Taxonomic history

Dorylozelus in Ponerinae, Ponerini: Forel, 1917: 238.

Dorylozelus in Ponerinae, Dorylozelini: Wheeler, W.M. 1922a: 646; Donisthorpe, 1943c: 640.

Dorylozelus incertae sedis in Ponerinae, Amblyoponini: Brown, 1960a: 181.

Dorylozelus as junior synonym of *Leptogenys*: Taylor, 1969: 132.

Microbolbos Donisthorpe, 1948d: 170. Type-species: *Microbolbos testaceus*, by original designation.

Taxonomic history

Microbolbos as junior synonym of *Leptogenys*: Wilson, 1955b: 136.

Genus references

Roger, 1863b: 19 (*Lobopelta*, *Leptogenys* catalogues); Mayr, 1863: 426, 427 (*Leptogenys*, *Lobopelta* catalogues); Mayr, 1865: 14, 15 (*Leptogenys*, *Lobopelta* diagnoses); Mayr, 1867a: 89 (diagnosis); Mayr, 1879: 664 (*Lobopelta* species key); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 43, 46 (*Lobopelta*, *Leptogenys* catalogues); Forel, 1900c: 304 (India & Sri Lanka species key); Bingham, 1903: 52,

55 (India, Sri Lanka & Burma *Leptogenys*, *Lobopelta* species keys); Emery, 1911b: 97 (diagnosis, subgenera key, catalogue); Arnold, 1915: 89, 95 (diagnosis, South Africa *L. (Leptogenys)* & *L. (Lobopelta)* species keys); Mann, 1919: 298 (Papuaia *L. (Leptogenys)* species key); Mann, 1921: 426 (Fiji *L. (Lobopelta)* species key); Wheeler, W.M. 1922a: 93, 786, 1010 (diagnosis, Afrotropical, Malagasy catalogues); Wheeler, W.M. 1923a: 14 (New World *L. (Lobopelta)* species key); Creighton, 1950a: 51 (North America *L. (Lobopelta)* species key); Chapman & Capco, 1951: 31 (Asia checklist); Wilson, 1958a: 113 (Melanesia & Moluccas species revision, key); Wilson, 1958a: 136 (New Caledonia species key); Kempf, 1972a: 129 (Neotropical catalogue); Alayo, 1974: 8 (Cuba species key); Bolton, 1975a: 239 (diagnosis, review of genus); Bolton, 1975a: 244 (Afrotropical species revision, key); Bolton, 1975a: 293 (Malagasy species key); Smith, D.R. 1979: 1343 (North America catalogue); Taylor & Brown, D.R. 1985: 32, 39 (Australia catalogue); Taylor, 1987a: 34, 64 (Australia, New Caledonia checklists); Trager & Johnson, 1988: 30 (U.S.A. species key); Brandão, 1991: 349 (Neotropical catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 229 (catalogue); Wu, J. & Wang, 1995: 41 (China species key); Shattuck, 1999: 189 (Australia synopsis); Xu, 2000a: 118 (China species key); Zhou, 2001: 39 (China, Guangxi species key).

Genus *LOBOPONERA*

Loboponera Bolton & Brown, 2002: 3. Type-species: *Loboponera vigilans*, by original designation.

Taxonomic history

Loboponera in Ponerinae, Ponerini: Bolton & Brown, 2002: 2.

Genus references

Bolton & Brown, 2002: 4 (all species key).

Genus *MYOPIAS*

Myopias Roger, 1861a: 39. Type-species: *Myopias amblyops*, by monotypy.

Taxonomic history

Myopias in Ponerinae: Mayr, 1862: 713 [Poneridae]; Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 16.

Myopias in Ponerinae, Ponerini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135; Emery, 1911b: 94 [subtribe Plectroctenini]; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Myopias as junior synonym of *Pachycondyla*: Brown, 1973b: 182 [provisional]; Snelling, 1981: 389.

Myopias as genus: Willey & Brown, 1983: 249; all subsequent authors.

Junior synonyms of *MYOPIAS*

Trapeziopelta Mayr, 1862: 713 (diagnosis in key), 715. Type-species: *Ponera maligna*, by monotypy.

Taxonomic history

Trapeziopelta in Ponerinae: Mayr, 1862: 713 (in key) [Poneridae]; Mayr, 1865: 11 [Poneridae]; Dalla Torre, 1893: 43.

Trapeziopelta in Ponerinae, Ponerini: Emery, 1895e: 767; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135; Emery, 1911b: 93 [subtribe Plectroctenini]; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Trapeziopelta as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 390.

Trapeziopelta as genus: Wheeler, G.C. & Wheeler, J. 1985: 256 (anachronism).

Trapeziopelta as junior synonym of *Myopias*: Willey & Brown, 1983: 249; Bolton, 1994: 164; Bolton, 1995b: 48.

Bradyponera Mayr, 1886b: 362. Type-species: *Ponera nitida* (junior primary homonym in *Ponera*, replaced by *Myopias mayri*), by monotypy.

Taxonomic history

[*Bradyponera* Smith, F. 1873: viii, *nomen nudum*, attributed to Mayr.]

Bradyponera as junior synonym of *Trapeziopelta*: Emery, 1911b: 93 [provisional]; Donisthorpe, 1932: 468.

Bradyponera as junior synonym of *Pachycondyla*: Brown, 1973b: 179 [provisional]; Snelling, 1981: 389.

Genus references

Roger, 1863b: 19 (*Myopias*, *Trapeziopelta* catalogues); Mayr, 1863: 429, 457 (catalogue); Mayr, 1865: 11, 12 (*Trapeziopelta*, *Myopias* diagnoses); Mayr, 1867a: 81 (*Trapeziopelta* diagnosis); Dalla Torre, 1893: 16, 43 (*Myopias*, *Trapeziopelta* catalogues); Emery, 1900b: 313 (New Guinea *Trapeziopelta* species key); Bingham, 1903: 103 (diagnosis); Emery, 1911b: 93 (*Trapeziopelta* diagnosis, catalogue); Emery, 1911b: 94 (diagnosis, catalogue); Chapman & Capco, 1951: 67, 75 (Asia *Myopias*, *Trapeziopelta* checklists); Willey & Brown, 1983: 274 (Australia species key); Taylor & Brown, D.R. 1985: 35 (Australia catalogue); Taylor, 1987a: 41 (Australia checklist); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 269 (catalogue); Shattuck, 1999: 190 (Australia synopsis).

Genus *ODONTOMACHUS*

Odontomachus Latreille, 1804: 179. Type-species: *Formica haematoda*, by monotypy.

Taxonomic history

Odontomachus in Ponerites: Lepeletier de Saint-Fargeau, 1835: 185.

Odontomachus in Poneridae: Smith, F. 1857: 64; Smith, F. 1858b: 76.

Odontomachus in Formicidae, Odontomachidae: Mayr, 1862: 711; Mayr, 1865: 11; Smith, F. 1871: 319.

Odontomachus in Odontomachidae: Ashmead, 1905b: 382.

Odontomachus in Ponerinae: Dalla Torre, 1893: 49.

Odontomachus in Ponerinae, Odontomachini: Forel, 1893a: 163; Emery, 1895e: 768; Forel, 1895a: 118; Forel, 1899: 19; Wheeler, W.M. 1910d: 136; Emery, 1911b: 111; Arnold, 1915: 108; Forel, 1917:

238; Gallardo, 1918: 93; Wheeler, W.M. 1922a: 653; Donisthorpe, 1943c: 676; Chapman & Capco, 1951: 42; Kempf, 1972a: 170; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Jaffe, 1993: 8.

Odontomachus in Ponerinae, Ponerini: Brown, 1976a: 70 [subtribe Odontomachiti]; Bolton, 1994: 164.

Junior synonyms of *ODONTOMACHUS*

Pedetes Bernstein, 1861: 7. Type-species: *Pedetes macrorhynchus*, by monotypy.

Taxonomic history

Pedetes as junior synonym of *Odontomachus*: Dalla Torre, 1893: 51; all subsequent authors.

Champsomyrmex Emery, 1892c: 558 (footnote). Type-species: *Odontomachus coquereli*, by monotypy.

Taxonomic history

Champsomyrmex in Ponerinae: Dalla Torre, 1893: 49.

Champsomyrmex in Odontomachidae: Ashmead, 1905b: 382.

Champsomyrmex in Ponerinae, Odontomachini: Emery, 1895e: 768; Wheeler, W.M. 1910d: 136; Emery, 1911b: 111; Wheeler, W.M. 1922a: 653; Donisthorpe, 1943c: 632.

Champsomyrmex as subgenus of *Odontomachus*: Forel, 1893a: 163 (misspelled as *Thempsoymymex*); Forel, 1917: 238.

Champsomyrmex as genus: Emery, 1892c: 558 (footnote); Dalla Torre, 1893: 49; Emery, 1911b: 111; Wheeler, W.M. 1922a: 653.

Champsomyrmex as junior synonym of *Odontomachus*: Brown, 1973b: 179 [provisional]; Brown, 1976a: 96.

Myrtoterias Matsumura, 1912: 191. Type-species: *Myrtoterias kuroiwa* (junior synonym of *Odontomachus monticola*), by monotypy.

Taxonomic history

Myrtoterias in Ponerinae, Odontomachini: Donisthorpe, 1943c: 672.

Myrtoterias as junior synonym of *Odontomachus*: Brown, 1973b: 182 [provisional]; Brown, 1976a: 96.

Genus references

Roger, 1863b: 21 (catalogue); Mayr, 1863: 436 (catalogue); Mayr, 1865: 11 (diagnosis); Cresson, 1887: 258 (U.S.A. catalogue); Emery, 1892c: 559 (all species key); Dalla Torre, 1893: 49 (catalogue); Forel, 1900b: 57 (India & Sri Lanka species key); Bingham, 1903: 47 (India, Sri Lanka & Burma species key); Emery, 1911b: 111 (diagnosis, catalogue); Gallardo, 1918: 95 (Argentina species key); Wheeler, W.M. 1922a: 99, 792, 1013 (diagnosis, Afrotropical, Malagasy catalogues); Creighton, 1950a: 55 (North America species key); Chapman & Capco, 1951: 42 (Asia checklist); Wilson, 1959a: 485 (Melanesia & Moluccas species revision, key); Kempf, 1962b: 17 (Neotropical species key); Kempf, 1972a: 170 (Neotropical catalogue); Brown, 1976a: 111, 114, 117 (New World species, Malesian & Austral species, Afrotropical & Malagasy species keys); Smith, D.R. 1979: 1344 (North America catalogue); Deyrup, Trager & Carlin, 1985: 188 (Southeastern U.S.A. species, review); Brown, 1978b: 281 (supplement to Brown, 1976a); Taylor & Brown, D.R. 1985: 36 (Australia catalogue); Taylor, 1987a: 48 (Australia, New Caledonia checklist); Wang, M. 1993: 220 (China species key); De Andrade, 1994: 24 (*Dominican Amber species key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 294 (catalogue); Gronenberg, 1995: 391 (mandible morphology); Shattuck, 1999: 194 (Australia synopsis); Zhou, 2001: 25 (China, Guangxi species key).

Genus *ODONTOPONERA*

Odontoponera Mayr, 1862: 713 (diagnosis in key), 717. Type-species: *Ponera denticulata* (junior synonym of *Odontoponera transversa*), by monotypy.

Taxonomic history

Odontoponera in Ponerinae: Mayr, 1862: 713 [Poneridae]; Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 30.

Odontoponera in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Odontoponera in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1900c: 314; Wheeler, W.M. 1910d: 135; Emery, 1911b: 60 [subtribe Pachycondyliini]; Forel, 1917: 237; Wheeler, W.M. 1922a: 646; all subsequent authors.

Genus references

Roger, 1863b: 18 (catalogue); Mayr, 1863: 437 (catalogue); Mayr, 1865: 12 (diagnosis); Mayr, 1867a: 82 (diagnosis); Dalla Torre, 1893: 30 (catalogue); Bingham, 1903: 72 (diagnosis); Emery, 1911b: 60 (diagnosis, catalogue); Creighton, 1929: 151 (infraspecific taxa, key); Chapman & Capco, 1951: 67 (Asia checklist); Bolton, 1995a: 1051 (census); Bolton, 1995b: 298 (catalogue).

Genus *PACHYCONDYLA*

Pachycondyla Smith, F. 1858b: 105. Type-species: *Formica crassinoda*, by subsequent designation of Emery, 1901a: 42.

Taxonomic history

Pachycondyla in Poneridae: Smith, F. 1858b: 105; Smith, 1871a: 324.

Pachycondyla in Ponerinae: Mayr, 1862: 713 [Poneridae]; Mayr, 1865: 13 [Poneridae]; Dalla Torre, 1893: 32.

Pachycondyla in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Pachycondyla in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1895a: 114; Forel, 1899: 10; Wheeler, W.M. 1910d: 135; Emery, 1911b: 73 [subtribe Pachycondyliini]; Arnold, 1915: 53; Forel, 1917: 237; Wheeler, W.M. 1922a: 648; all subsequent authors.

Junior synonyms of *PACHYCONDYLA*

Bothroponera Mayr, 1862: 713 (diagnosis in key), 717. Type-species: *Ponera pumicosa*, by subsequent designation of Emery, 1901a: 42.

Taxonomic history

Bothroponera in Ponerinae: Mayr, 1862: 713 (in key) [Poneridae]; Mayr, 1865: 13 [Poneridae]; Dalla Torre, 1893: 35.

Bothroponera in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Bothroponera in Ponerinae, Ponerini: Emery, 1895e: 767; Emery, 1911b: 75 [subtribe Pachycondyliini]; Wheeler, W.M. 1922a: 648; all subsequent authors.

Bothroponera as subgenus of *Ponera*: Emery, 1895e: 767; Forel, 1900c: 325.

Bothroponera as subgenus of *Pachycondyla*: Emery, 1901a: 42; Wheeler, W.M. 1910d: 135; Emery, 1911b: 75; Arnold, 1915: 55; Forel, 1917: 237; Donisthorpe, 1943c: 628.

Bothroponera as genus: Mayr, 1862: 717; Dalla Torre, 1893: 35; Bingham, 1903: 95; Ashmead, 1905b: 382; Wheeler, W.M. 1918b: 299 (footnote); Wheeler, W.M. 1922a: 648; Wheeler, W.M. & Chapman, 1925: 67; Chapman & Capco, 1951: 49; Bernard, 1953: 187; Taylor, 1987a: 9; Taylor & Brown, D.R. 1985: 21; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78.

Bothroponera as junior synonym of *Pachycondyla*: Brown, 1973b: 179 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.

Megaponera Mayr, 1862: 714 (diagnosis in key), 734. Type-species: *Formica foetens* (junior primary homonym in *Formica*, replaced by *Formica analis*), by monotypy.

Taxonomic history

Megaponera in Ponerinae: Dalla Torre, 1893: 30; Mayr, 1862: 714 [Poneridae]; Mayr, 1865: 15 [Poneridae].

Megaponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Megaponera in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 67 [subtribe Pachycondyliini]; Arnold, 1915: 46; Wheeler, W.M. 1922a: 647; all subsequent authors to the following.

Megaponera as junior synonym of *Pachycondyla*: Brown, in Bolton, 1994: 164.

[*Megaloponera* Roger, 1863b: 17, incorrect subsequent spelling; misspelling repeated by several authors, for example Emery, 1877b: 368; Forel, 1917: 237.]

Paltothyreus Mayr, 1862: 714 (diagnosis in key), 735. Type-species: *Formica tarsata*, by monotypy.

Taxonomic history

Paltothyreus in Ponerinae: Mayr, 1862: 714 [Poneridae]; Mayr, 1865: 15 [Poneridae]; Dalla Torre, 1893: 32.

Paltothyreus in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Paltothyreus in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 62 [subtribe Pachycondyliini]; Arnold, 1915: 43; Forel, 1917: 237; Wheeler, W.M. 1922a: 647; all subsequent authors.

Paltothyreus as junior synonym of *Pachycondyla*: Brown, in Bolton, 1994: 164.

Ectomomyrmex Mayr, 1867a: 83. Type-species: *Ectomomyrmex javanus*, by subsequent designation of Bingham, 1903: 85.

Taxonomic history

Ectomomyrmex in Ponerinae: Dalla Torre, 1893: 30.

Ectomomyrmex in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Ectomomyrmex in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1900c: 321; Emery, 1911b: 78 [subtribe Pachycondyliini]; Wheeler, W.M. 1922a: 648; all subsequent authors.

Ectomomyrmex as subgenus of *Pachycondyla*: Emery, 1901a: 42; Wheeler, W.M. 1910d: 135; Emery, 1911b: 78; Arnold, 1915: 53; Forel, 1917: 237.

Ectomomyrmex as genus: Mayr, 1867a: 83; Dalla Torre, 1893: 30; Ashmead, 1905b: 382; Forel, 1900c: 321; Bingham, 1903: 85; Wheeler, W.M. 1922a: 648; Chapman & Capco, 1951: 60; Brown, 1963: 9; Taylor & Brown, D.R. 1985: 29; Taylor, 1987a: 26; Ogata, 1987: 112.

Ectomomyrmex as junior synonym of *Pachycondyla*: Brown, 1973b: 180 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.

[*Ectomyrmex* Donisthorpe, 1943c: 641, incorrect subsequent spelling.]

Ophthalmopone Forel, 1890b: cxii. Type-species: *Ophthalmopone berthoudi*, by monotypy.

Taxonomic history

Ophthalmopone in Ponerinae: Dalla Torre, 1893: 31.

Ophthalmopone in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Ophthalmopone in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 69 [subtribe Pachycondyliini]; Arnold, 1915: 49; Forel, 1917: 237; Wheeler, W.M. 1922a: 647; all subsequent authors.

Ophthalmopone as junior synonym of *Pachycondyla*: Brown, in Bolton, 1994: 164.

Euponera Forel, 1891b: 126 [as subgenus of *Ponera*]. Type-species: *Ponera (Euponera) sikorae*, by monotypy.

Taxonomic history

Euponera in Ponerinae, Ponerini: Emery, 1895e: 767; Emery, 1911b: 79 [subtribe Pachycondyliini]; Wheeler, W.M. 1915e: 37; Arnold, 1915: 63; Forel, 1917: 237; Wheeler, W.M. 1922a: 648; all subsequent authors.

Euponera as subgenus of *Ponera*: Forel, 1891b: 126; Emery, 1895e: 767.

Euponera as genus: Emery, 1901a: 46; Emery, 1909c: 364; Wheeler, W.M. 1910d: 135; Emery, 1911b: 79; Arnold, 1915: 63; Forel, 1917: 237; Gallardo, 1918: 64; Wheeler, W.M. 1922a: 648; Borgmeier, 1923: 70; Clark, 1934b: 30; Creighton, 1950a: 44; Chapman & Capco, 1951: 63; Bernard, 1953: 189; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 11.

Euponera as junior synonym of *Pachycondyla*: Brown, in Bolton, 1994: 164.

Pseudoponera Emery, 1900b: 314 [as subgenus of *Pachycondyla*]. Type-species: *Ponera quadridentata* (junior synonym of *Pachycondyla stigma*), by monotypy.

Taxonomic history

[*Pseudoponera* also described as new by Emery, 1901a: 42. Type-species not *Ponera amblyops*, unjustified subsequent designation by Emery, 1901a: 42; repeated in Wheeler, W.M. 1911b: 171, Wheeler, W.M. 1922a: 779 and Donisthorpe, 1943d: 723.]

Pseudoponera in Pachycondylinae, Pachycondylini: Ashmead, 1905b: 382.

Pseudoponera in Ponerinae, Ponerini: Emery, 1911b: 86 [subtribe Pachycondylini]; Forel, 1917: 238; all subsequent authors.

Pseudoponera as subgenus of *Pachycondyla*: Emery, 1900b: 314; Emery, 1901a: 42.

Pseudoponera as subgenus of *Euponera*: Forel, 1900b: 141; Forel, 1900e: 398; Emery, 1909c: 364; Wheeler, W.M. 1910d: 135.

Pseudoponera as genus: Bingham, 1903: 91; Ashmead, 1905b: 382; Emery, 1911b: 86; Forel, 1917: 238; Wheeler, W.M. 1922a: 649; Donisthorpe, 1943d: 722; Chapman & Capco, 1951: 74.

Pseudoponera as junior synonym of *Pachycondyla*: Brown, 1973b: 184 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.

Brachyponera Emery, 1900b: 315 [as subgenus of *Euponera*]. Type-species: *Euponera (Brachyponera) croceicornis*, by monotypy.

Taxonomic history

[*Brachyponera* also described as new by Emery, 1901a: 43. Type-species not *Ponera sennaarensis*, unjustified subsequent designation by Emery, 1901a: 43, repeated in Wheeler, W.M. 1911b: 160, Emery, 1911b: 84, Wheeler, W.M. 1922a: 777, Donisthorpe, 1943c: 628, Wilson, 1958b: 346; Bolton, 1973a: 335 and Taylor & Brown, D.R. 1985: 23.]

Brachyponera in Pachycondylinae, Pachycondylini: Ashmead, 1905b: 382.

Brachyponera in Ponerinae, Ponerini: Emery, 1911b: 83; all subsequent authors.

Brachyponera as subgenus of *Euponera*: Emery, 1900b: 315; Emery, 1909c: 366; Wheeler, W.M. 1910d: 135; Emery, 1911b: 83; Arnold, 1915: 72; Forel, 1917: 237; Wheeler, W.M. 1922a: 649; subsequent authors to the following.

Brachyponera as genus: Bingham, 1903: 101; Ashmead, 1905b: 382; Wilson, 1958b: 346; Taylor & Brown, D.R. 1985: 23; Wheeler, G.C. & Wheeler, J. 1985: 256; Taylor, 1987a: 9; Ogata, 1987: 116; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10.

Brachyponera as junior synonym of *Pachycondyla*: [Snelling, 1981: 389 (provisional synonym)]; Brown, in Bolton, 1994: 164.

Mesoponera Emery, 1900c: 668 [as subgenus of *Euponera*]. Type-species: *Ponera melanaria*, by monotypy.

Taxonomic history

[*Mesoponera* also described as new by Emery, 1901a: 43. Type-species not *Ponera cafferaria*, unjustified subsequent designation by Emery, 1901a: 43, repeated by Emery, 1911b: 81, Wheeler, W.M. 1911b: 167, Wheeler, W.M. 1922a: 775, Donisthorpe, 1943c: 661, Wilson, 1958b: 349; Kempf, 1972a: 141, Bolton, 1973a: 338 and Taylor & Brown, D.R. 1985: 35.]

Mesoponera in Pachycondylinae, Pachycondylini: Ashmead, 1905b: 382.

Mesoponera in Ponerinae, Ponerini: Emery, 1911b: 80; all subsequent authors.

Mesoponera as subgenus of *Euponera*: Emery, 1900c: 668; Wheeler, W.M. 1910d: 135; Emery, 1911b: 80; Arnold, 1915: 64; Forel, 1917: 237; Gallardo, 1918: 65; Wheeler, W.M. 1922a: 649; Borgmeier, 1923: 71; Donisthorpe, 1943c: 661; Chapman & Capco, 1951: 64; Bernard, 1953: 190.

Mesoponera as genus: Bingham, 1903: 99; Ashmead, 1905b: 382; Wilson, 1958b: 349; Kempf, 1972a: 141; Taylor & Brown, D.R. 1985: 34; Taylor, 1987a: 39; Dlussky & Fedoseeva, 1988: 78.

Mesoponera as junior synonym of *Pachycondyla*: Brown, 1973b: 182 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.

Eumecopone Forel, 1901c: 335 [as subgenus of *Neoponera*]. Type-species: *Neoponera (Eumecopone) agilis*, by monotypy.

Taxonomic history

Eumecopone as subgenus of *Neoponera*: Forel, 1900c: 335; Wheeler, W.M. 1910d: 135; Emery, 1911b: 71; Forel, 1917: 237; Wheeler, W.M. 1922a: 648; subsequent authors to the following.

Eumecopone junior synonym of *Pachycondyla*: Brown, 1973b: 180 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.

Hagensia Forel, 1900d: 333 [as subgenus of *Megaloponera* (sic)]. Type-species: *Megaloponera* (sic) (*Hagensia*) *havalandi*, by monotypy.

Taxonomic history

Hagensia in Ponerinae, Ponerini: Emery, 1911b: 69 [subtribe Pachycondylini]; all subsequent authors.

Hagensia as subgenus of *Megaponera*: Forel, 1900d: 333; Wheeler, W.M. 1910d: 135; Emery, 1911b: 61.

Hagensia as subgenus of *Euponera*: Forel, 1917: 237.

- Hagensia* as genus: Arnold, 1926: 202; Donisthorpe, 1943c: 648; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 11.
- Hagensia* as junior synonym of *Pachycondyla*: Brown, in Bolton, 1994: 164.
- Neoponera* Emery, 1901a: 43. Type-species: *Formica villosa*, by original designation.
- Taxonomic history**
- Neoponera* in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.
- Neoponera* in Ponerinae, Ponerini: Wheeler, W.M. 1910d: 135; Emery, 1911b: 70 [subtribe Pachycondyliini]; Forel, 1917: 237; Wheeler, W.M. 1922a: 648; all subsequent authors.
- Neoponera* as junior synonym of *Pachycondyla*: Brown, 1973b: 183 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Trachymesopus* Emery, 1911b: 84 [as subgenus of *Euponera*]. Type-species: *Formica stigma*, by original designation.
- Taxonomic history**
- Trachymesopus* in Ponerinae, Ponerini: Emery, 1911b: 84; all subsequent authors.
- Trachymesopus* as subgenus of *Euponera*: Emery, 1911b: 84; Arnold, 1915: 74; Forel, 1917: 237; Wheeler, W.M. 1922a: 649; Borgmeier, 1923: 72; Donisthorpe, 1943d: 733; Creighton, 1950a: 46; Chapman & Capco, 1951: 65; Smith, M.R. 1951: 786; Bernard, 1953: 195.
- Trachymesopus* as genus: Wilson, 1958b: 352; Kempf, 1960d: 423; Brown, 1963: 6; Kempf, 1972a: 251; Taylor & Brown, D.R. 1985: 52; Ogata, 1987: 114; Dlussky & Fedoseeva, 1988: 78.
- Trachymesopus* as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Trachymesopus* as junior synonym of *Pseudoponera*: Bolton, 1995b: 48 (because of synonymous type-species).
- [*Trachyponera* Santschi, 1928a: 43, incorrect subsequent spelling.]
- Xiphopelta* Forel, 1913a: 108 [as subgenus of *Ponera*]. Type-species: *Ponera (Xiphopelta) arnoldi*, by monotypy.
- Taxonomic history**
- Xiphopelta* as subgenus of *Ponera*: Forel, 1913a: 108; Donisthorpe, 1943d: 737.
- Xiphopelta* as subgenus of *Euponera*: Forel, 1917: 237; Emery, 1919b: 106; Bernard, 1953: 191.
- Xiphopelta* as junior synonym of *Mesoponera*: Wheeler, W.M. 1922a: 775; all subsequent authors to the following.
- Xiphopelta* as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- [*Hiphopelta* Forel, 1913a: 108, incorrect subsequent spelling.]
- Termitopone* Wheeler, W.M. 1936d: 159. Type-species: *Ponera laevigata*, by original designation.
- Taxonomic history**
- Termitopone* in Ponerinae, Ponerini: Donisthorpe, 1943d: 731.
- Termitopone* as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Syntermitopone* Wheeler, W.M. 1936d: 169 [as subgenus of *Termitopone*]. Type-species: *Ponera commutata*, by original designation.
- Taxonomic history**
- Syntermitopone* as subgenus of *Termitopone*: Wheeler, W.M. 1936d: 169.
- Syntermitopone* as genus: Kusnezov, 1956: 15.
- Syntermitopone* as junior synonym of *Termitopone*: Borgmeier, 1959a: 312.
- Syntermitopone* as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Wadeura* Weber, 1939: 102. Type-species: *Wadeura guianensis*, by original designation.
- Taxonomic history**
- Wadeura* in Ponerinae, Ponerini: Donisthorpe, 1943d: 735.
- Wadeura* as junior synonym of *Pachycondyla*: Brown, 1973b: 185 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Pseudoneoponera* Donisthorpe, 1943b: 439. Type-species: *Pseudoneoponera verecundae*, by original designation.
- Taxonomic history**
- Pseudoneoponera* in Ponerinae, Pseudoneoponerini: Chapman & Capco, 1951: 77.
- Pseudoneoponera* as junior synonym of *Bothroponera*: Wilson, 1958b: 361.
- Pseudoneoponera* as junior synonym of *Pachycondyla*: Brown, 1973b: 184 [provisional]; Snelling, 1981: 389; Hölldobler & Wilson, 1990: 11; Brown, in Bolton, 1994: 164.
- Genus references**
- Mayr, 1862: 719 (diagnosis); Roger, 1863b: 16, 17, 18 (catalogue); Mayr, 1863: 397, 428, 439, 440 (catalogue); Mayr, 1865: 13, 15 (*Bothroponera*, *Pachycondyla*, *Megaponera*, *Paltothyreus* diagnoses); Mayr, 1867a: 82 (*Bothroponera* diagnosis); Mayr, 1870a: 396 (Colombia + Panama (= New Grenada) species key); Emery, 1887b: 18 (footnote) (Asia & Australia *Bothroponera* species key); Emery, 1890a: 71 (Neotropical species key); Dalla Torre, 1893: 30, 31, 32, 35 (*Ectomomyrmex*, *Megaponera*, *Ophthalmopone*, *Paltothyreus*, *Pachycondyla*, *Bothroponera* catalogues); Forel, 1900c: 321 (India & Sri Lanka *Ectomomyrmex* species key); Bingham, 1903: 86, 91, 96, 101 (India, Sri Lanka & Burma *Ectomomyrmex*, *Pseudoponera*, *Bothroponera*, *Brachyponera* species keys); Emery, 1911b: 62 (*Paltothyreus* diagnosis, catalogue); Emery,

1911b: 67 (*Megaponera* diagnosis, catalogue); Emery, 1911b: 69 (*Megaponera* (*Hagensia*) and *Ophthalmopone* diagnoses, catalogues); Emery, 1911b: 70 (*Neoponera* diagnosis, catalogue); Emery, 1911b: 73 (diagnosis, subgenera key, catalogue); Emery, 1911b: 75 (*P. (Bothroponera)* diagnosis, catalogue); Emery, 1911b: 78 (*P. (Ectomomyrmex)* diagnosis, catalogue); Emery, 1911b: 80 (*Euponera* diagnosis, subgenera key, catalogue); Emery, 1911b: 80 (*Euponera* (*Mesoponera*) diagnosis, catalogue); Emery, 1911b: 83 (*Euponera* (*Brachyponera*) diagnosis, catalogue); Emery, 1911b: 84 (*Euponera* (*Trachymesopus*) diagnosis, catalogue); Emery, 1911b: 86 (*Pseudoponera* diagnosis, catalogue); Arnold, 1915: 43, 46, 49, 53, 63 (*Paltothyreus*, *Megaponera*, *Ophthalmopone*, *Pachycondyla*, *Euponera* diagnoses); Arnold, 1915: 50, 55, 64 (South Africa *Ophthalmopone*, *Bothroponera*, *Euponera* (*Mesoponera*) species keys); Gallardo, 1918: 56, 66 (Argentina *Neoponera*, *Mesoponera*, keys); Wheeler, W.M. 1922a: 72 (Afrotropical *Bothroponera* species key); Wheeler, W.M. 1922a: 60, 63, 69, 81 (*Paltothyreus*, *Megaponera*, *Bothroponera*, *Euponera* diagnoses); Wheeler, W.M. 1922a: 763, 766, 768, 769, 774 (Afrotropical *Paltothyreus*, *Megaponera*, *Ophthalmopone*, *Bothroponera*, *Ectomomyrmex*, *Euponera*, *Pseudoponera* catalogues); Wheeler, W.M. 1922a: 1007, 1008 (Malagasy *Bothroponera*, *Euponera* catalogues); Arnold, 1926: 203 (South Africa *Hagensia* species key); Santschi, 1935: 259 (Africa *Mesoponera*, key); Creighton, 1950a: 45 (North America *Euponera* species key); Arnold, 1951: 53 (*Hagensia* species key); Chapman & Capco, 1951: 49, 60, 63, 74 (Asia *Bothroponera*, *Ectomomyrmex*, *Euponera*, *Pseudoponera* checklists); Arnold, 1952a: 461 (South Africa *Bothroponera*, key); Bernard, 1953: 191 (Guinea *Euponera* (*Xiphopelta*) species key); Brown, 1958c: 20 (New Zealand species); Wilson, 1958b: 346, 362 (Melanesia *Brachyponera*, *Ectomomyrmex* species keys); Kempf, 1961b: 192 (Brazil species key); Brown, 1963: 6, 9 (reviews of *Trachymesopus* & *Ectomomyrmex*); Kempf, 1964b: 51 (Neotropical *Pachycondyla* species key); Kusnezov, 1969: 36 (Argentina *Neoponera* species key); Kempf, 1972a: 141, 160, 174, 248, 251, 257 (Neotropical *Mesoponera*, *Neoponera*, *Pachycondyla*, *Termitopone*, *Trachymesopus*, *Wadeura*, catalogues); Alayo, 1974: 7 (Cuba species key); Smith, D.R. 1979: 1339 (North America, catalogue); Taylor & Brown, D.R. 1985: 21, 23, 29, 34, 34, 52 (Australia, catalogue); Taylor, 1987a: 9, 26, 39, 80 (Australia, New Caledonia & New Zealand checklists); Morisita, Kubota, Onoyama, *et al.*, 1989: 18 (Japan *Ectomomyrmex*, *Brachyponera*, *Trachymesopus* species key); Brandão, 1991: 354, 360, 365, 381, 382 (Neotropical catalogue); Xu, 1994b: 182 (China *Brachyponera* species key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 302 (catalogue); Wu, J. & Wang, 1995: 45 (China species key); Xu, 1995b: 104 (China species key); Collingwood & Agosti, 1996: 310 (Saudi Arabia species key); Kim, Kim & Kim, 1998: 147 (Korea species key); Shattuck, 1999: 196 (Australia fauna synopsis); Zhou, 2001: 49 (China, Guangxi species key).

Genus *PHRYNOPONERA*

Phrynoponera Wheeler, W.M. 1920: 53. Type-species: *Bothroponera gabonensis*, by original designation.

Taxonomic history

Phrynoponera in Ponerinae, Ponerini: Wheeler, W.M. 1922a: 648; all subsequent authors.

Phrynoponera as junior synonym of *Pachycondyla*: Brown, 1973b: 183 [provisional]; Snelling, 1981: 389.

Phrynoponera as genus: Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 75; Bolton, 1994: 165; Bolton, 1995b: 42, 334.

Genus references

Wheeler, W.M. 1922a: 75, 773 (diagnosis, all species key, catalogue).

Genus *PLECTROCTENA*

Plectroctena Smith, F. 1858b: 101. Type-species: *Plectroctena mandibularis*, by monotypy.

Taxonomic history

Plectroctena in Poneridae: Smith, F. 1858b: 101.

Plectroctena in Ponerinae: Mayr, 1862: 713 [Poneridae]; Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 31.

Plectroctena in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Plectroctena in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 94 [subtribe Plectroctenini]; Arnold, 1915: 84; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Junior synonym of *PLECTROCTENA*

Cacopone Santschi, 1914b: 325. Type-species: *Cacopone hastifer*, by monotypy.

Taxonomic history

Cacopone in Ponerinae, Ponerini: Forel, 1917: 238 [subtribe Plectroctenini]; Wheeler, W.M. 1922a: 650; Santschi, 1924a: 159; Donisthorpe, 1943c: 629.

Cacopone as junior synonym of *Plectroctena*: Bolton, 1974b: 313.

Genus references

Roger, 1863b: 19 (catalogue); Mayr, 1863: 442 (catalogue); Mayr, 1865: 12 (diagnosis); Dalla Torre, 1893: 31 (catalogue); Emery, 1911b: 94 (diagnosis, catalogue); Arnold, 1915: 84 (diagnosis, South Africa species); Wheeler, W.M. 1922a: 85, 783, 785, 786 (diagnosis, *Plectroctena*, *Myopias*, *Cacopone* catalogues); Santschi, 1924a: 172 (all species revision, key); Bolton, 1974b: 309 (diagnosis, all species revision, key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 337 (catalogue); Bolton & Brown, 2002: 11 (all species key).

Genus PONERA

Ponera Latreille, 1804: 179. Type-species: *Formica coarctata*, by subsequent designation of Westwood, 1840a: 83 (see discussion in Taylor, 1967: 6).

Taxonomic history

Ponera in Ponerites: Lepeletier de Saint-Fargeau, 1835: 188.

Ponera in Poneridae: Smith, F. 1858b: 83; Smith, F. 1871: 320.

Ponera in Ponerinae: Mayr, 1855: 386 [Poneridae]; Smith, F. 1857: 65 [Poneridae]; Mayr, 1861: 54 [Poneridae]; Mayr, 1862: 713 [Poneridae]; Mayr, 1865: 13 [Poneridae]; Emery & Forel, 1879: 455 [Poneridae]; Dalla Torre, 1893: 37.

Ponera in Ponerinae, Ponerini: Emery, 1895e: 767; Forel, 1899: 15; Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135; Emery, 1911b: 88 [subtribe Ponerini]; Wheeler, W.M. 1915e: 38; Arnold, 1915: 77; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Junior synonyms of PONERA

Pseudocryptopone Wheeler, W.M. 1933b: 12. Type-species: *Cryptopone tenuis*, by original designation.

Taxonomic history

Pseudocryptopone in Ponerinae, Ponerini: Donisthorpe, 1943d: 722.

Pseudocryptopone as junior synonym of *Ponera*: Wilson, 1957: 356.

Selenopone Wheeler, W.M. 1933b: 19. Type-species: *Ponera selenophora*, by original designation.

Taxonomic history

Selenopone in Ponerinae, Ponerini: Donisthorpe, 1943d: 725.

Selenopone as junior synonym of *Ponera*: Wilson, 1957: 356.

Pteroponera Bernard, 1950: 3. Type-species: *Pteroponera sysphinctoides*, by monotypy.

Taxonomic history

Pteroponera as junior synonym of *Ponera*: Brown, 1973b: 184 [provisional]; Brown, in Bolton, 1994: 164.

Genus references

[References before Taylor, 1967 refer to both *Ponera* and *Hypoponera*.]

Mayr, 1855: 386 (diagnosis); Smith, F. 1858b: 83 (diagnosis); Mayr, 1862: 721 (diagnosis); Roger, 1863b: 16 (catalogue); Mayr, 1863: 447 (catalogue); Mayr, 1865: 13 (diagnosis); Mayr, 1867a: 85 (diagnosis); Forel, 1874: 64 (Switzerland species key); Mayr, 1879: 661 (all species key); André, 1882c: 239 (Europe & Algeria species key); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 37 (catalogue); Emery, 1895a: 60 (Mediterranean species key); Emery, 1896c: 53 (New World species key); Emery, 1900b: 316 (Australia, Papuasia & Oceania species key); Forel, 1900c: 322 (India & Sri Lanka species key); Bingham, 1903: 89 (India, Sri Lanka & Burma species key); Emery, 1909c: 367 (Palearctic species key); Emery, 1911b: 88 (diagnosis, catalogue); Arnold, 1915: 76 (diagnosis, South Africa species key); Emery, 1916b: 107 (Italy species key); Bondroit, 1918: 81 (France & Belgium species key); Gallardo, 1918: 73 (Argentina species key); Mann, 1921: 419 (Fiji species key); Wheeler, W.M. 1922a: 780, 1009 (Afrotropical, Malagasy catalogues); Menozzi, 1931a: 266 (Costa Rica species key); Wheeler, W.M. 1933b: 13 (*Pseudocryptopone* species key); Smith, M.R. 1936: 420 (North America species key); Stitz, 1939: 58 (Germany species key); Creighton, 1950a: 47 (North America species key); Chapman & Capco, 1951: 68, 73, 74 (Asia *Ponera*, *Pseudocryptopone*, *Selenopone* checklists); Bernard, 1953: 197 (West Africa species key); Wilson, 1957: 359, 376 (*P. tenuis*, *P. selenophora* groups revisions, keys); Wilson, 1958b: 323, 343 (Melanesia & Moluccas species, Fiji species revisions, keys); Brown, 1958c: 22 (New Zealand species); Taylor, 1960: 180 (*P. lae* complex, key); Taylor, 1964: 139 (*fossil species, review); Taylor, 1967: 18 (diagnosis, all species revision, key); Bernard, 1967: 83 (diagnosis, Western Europe species key); Smith, D.R. 1979: 1341 (North America catalogue); Taylor & Brown, D.R. 1985: 38 (Australia catalogue); Taylor, 1987a: 63 (Australia, New Caledonia & New Zealand, checklist); Morisita, Kubota, Onoyama, *et al.*, 1989: 22 (Japan species key); Perrault, 1993: 337 (addition to Taylor, 1967 key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 360 (catalogue); Terayama, 1996: 14 (Japan species key); Kim, Kim & Kim, 1998: 149 (Korea species key); Shattuck, 1999: 199 (Australia synopsis); Xu, 2001a: 52 and Xu, 2001c: 218 (China species keys); Zhou, 2001: 37 (China, Guangxi species key).

Genus PSALIDOMYRMEX

Psalidomyrmex André, 1890: 313. Type-species: *Psalidomyrmex foveolatus*, by monotypy.

Taxonomic history

Psalidomyrmex in Ponerinae: Dalla Torre, 1893: 31.

Psalidomyrmex in Pachycondylinae, Pachycondylini: Ashmead, 1905b: 382.

Psalidomyrmex in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 95 [subtribe Plectroctenini]; Forel, 1917: 238; Wheeler, W.M. 1922a: 650; all subsequent authors.

Genus references

Dalla Torre, 1893: 31 (catalogue); Emery, 1911b: 95 (diagnosis, catalogue); Wheeler, W.M. 1922a: 89, 90, 785 (diagnosis, all species key, catalogue); Bolton, 1975b: 1 (diagnosis, all species revision, key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 369 (catalogue); Bolton & Brown, 2002: 8 (all species key).

Genus SIMOPELTA

Simopelta Mann, 1922: 10 [as subgenus of *Belonopelta*]. Type-species: *Belonopelta (Simopelta) jeckylli*, by original designation.

Taxonomic history

Simopelta in Ponerinae, Ponerini: Donisthorpe, 1943d: 726; all subsequent authors.

Simopelta as subgenus of *Belonopelta*: Mann, 1922: 10; Donisthorpe, 1943d: 726.

Simopelta as junior synonym of *Belonopelta*: Baroni Urbani, 1975b: 296.

Simopelta as genus: Wheeler, W.M. 1935d: 8; Gotwald & Brown, 1967: 261; Kempf, 1972a: 230; Hölldobler & Wilson, 1990: 11.

Genus references

Wheeler, W.M. 1935d: 9 (all species key); Gotwald & Brown, 1967: 275 (diagnosis, all species revision, key); Kempf, 1972a: 230 (catalogue); Baroni Urbani, 1975b: 298 (all species key); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 383 (catalogue).

Genus *STREBLOGNATHUS*

Streblognathus Mayr, 1862: 713 (diagnosis in key), 716. Type-species: *Ponera aethiopica*, by monotypy.

Taxonomic history

Streblognathus in Ponerinae: Mayr, 1862: 713 (in key) [Poneridae]; Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 31.

Streblognathus in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Streblognathus in Ponerinae, Ponerini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 61 (subtribe Pachycondyliini); Arnold, 1915: 41; Forel, 1917: 237; Wheeler, W.M. 1922a: 646; all subsequent authors.

Genus references

Roger, 1863b: 19 (catalogue); Mayr, 1863: 454 (catalogue); Mayr, 1865: 12 (diagnosis); Dalla Torre, 1893: 31 (catalogue); Emery, 1911b: 61 (diagnosis, catalogue); Wheeler, W.M. 1922a: 763 (catalogue); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 395 (catalogue); Robertson, 2002: 8 (diagnosis, all species revision, key).

Tribe THAUMATOMYRMECINI

Thaumatomyrmex Emery, 1901a: 36. Type-genus: *Thaumatomyrmex*.

Taxonomic history

Thaumatomyrmecini as tribe of Ponerinae: Emery, 1901a: 36 [*Thaumatomyrmex*]; Emery, 1911b: 48 [*Thaumatomyrmecini*]; Forel, 1917: 236 [*Thaumatomyrmecini*]; Wheeler, W.M. 1922a: 637 [*Thaumatomyrmecini*]; Wheeler, G.C. & Wheeler, J. 1976: 45; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Bolton, 1994: 164. [*Taxonomy*, p. 44.]

Genus: *Thaumatomyrmex*.

Tribe and genus references

Dalla Torre, 1893: 46 (catalogue); Emery, 1911b: 48 (diagnosis, catalogue); Weber, 1939: 98 (all species key); Weber, 1942: 68 (all species key); Smith, M.R. 1944b: 98 (all species key); Kempf, 1972a: 250 (catalogue); Kempf, 1975a: 95 (tribe revision, all species revision, key); Wheeler, G.C. & Wheeler, J. 1976: 49 (larvae, review & synthesis); Longino, 1988: 35 (all species revision, diagnostics); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 16, 420 (catalogue).

Genus of *Thaumatomyrmecini*

Genus *THAUMATOMYRMEX*

Thaumatomyrmex Mayr, 1887: 530. Type-species: *Thaumatomyrmex mutilatus*, by monotypy.

Taxonomic history

Thaumatomyrmex in Ponerinae: Dalla Torre, 1893: 46.

Thaumatomyrmex in Pachycondyliinae, Cyldromyrmecini: Ashmead, 1905b: 382.

Thaumatomyrmex in Ponerinae, Ectatommini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135.

Thaumatomyrmex in Ponerinae, Ponerini: Forel, 1895a: 111; Kempf, 1972a: 250; Kempf, 1975a: 95; Jaffe, 1993: 8.

Thaumatomyrmex in Ponerinae, *Thaumatomyrmecini*: Emery, 1901a: 36 [*Thaumatomyrmex*]; Emery, 1911b: 48; Forel, 1917: 236; Wheeler, W.M. 1922a: 644; Donisthorpe, 1943d: 732; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Genus references: see above.

Tribe PLATYTHYREINI

Platythyrea Emery, 1901a: 36. Type-genus: *Platythyrea*.

Taxonomic history

Platythyreini as tribe of Ponerinae: Emery, 1901a: 36 [*Platythyrei*]; Emery, 1911b: 28; Wheeler, W.M. 1915e: 36; Arnold, 1915: 22; Forel, 1917: 237; Wheeler, W.M. 1922a: 638; all subsequent authors. [*Taxonomy*, p. 44.]

Genus: *Platythyrea*.

Tribe and genus references

Roger, 1863b: 17 (catalogue); Mayr, 1863: 442 (catalogue); Mayr, 1865: 14 (diagnosis); Dalla Torre, 1893: 27 (catalogue); Forel, 1900c: 314 (India & Sri Lanka species key); Bingham, 1903: 74 (India, Sri Lanka & Burma species key); Emery, 1911b: 28 (diagnosis, catalogue); Arnold, 1915: 22 (diagnosis, South Africa species key); Mann, 1916: 403 (Neotropical species key); Wheeler, W.M. 1922a: 57, 758, 1007 (diagnosis, Afrotropical & Malagasy catalogues); Clark, 1930b: 9 (*Eubothroponera* species key); Chapman & Capco,

1951: 47 (Asia checklist); Brown, 1952f: 1 (diagnosis, genera); Wilson, 1958a: 150 (Melanesia & Moluccas species revision, key); Kempf, 1972a: 206 (Neotropical catalogue); Brown, 1975: 4, 9, 10 (diagnosis & review of genera, Afrotropical species, Malagasy, Malesian, Australian & New World species keys); Wheeler, G.C. & Wheeler, J. 1976: 48 (larvae, review & synthesis); Smith, D.R. 1979: 1336 (North America catalogue); Taylor & Brown, D.R. 1985: 37 (Australia catalogue); Taylor, 1987a: 56 (Australia checklist); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 10 (synoptic classification); Brandão, 1991: 371 (Neotropical catalogue); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 336 (catalogue); Shattuck, 1999: 198 (Australia synopsis).

Genus of *Platythyreini*

Genus *PLATYTHYREA*

Platythyrea Roger, 1863a: 172. Type-species: *Pachycondyla punctata*, by subsequent designation of Bingham, 1903: 73.

Taxonomic history

Platythyrea in Ponerinae: Mayr, 1865: 14 [Poneridae]; Dalla Torre, 1893: 27.

Platythyrea in Ponerinae, Ponerini: Forel, 1899: 3; Forel, 1900c: 314; Wheeler, W.M. 1910d: 135.

Platythyrea in Pachycondylinae, Ectatommini: Ashmead, 1905b: 382.

Platythyrea in Ponerinae, Platythyreini: Emery, 1911b: 28; Wheeler, W.M. 1915e: 36; Arnold, 1915: 22; Forel, 1917: 237; Wheeler, W.M. 1922a: 641; all subsequent authors.

Junior synonym of *PLATYTHYREA*

Eubothroponera Clark, 1930b: 8. Type-species: *Eubothroponera dentinodis*, by original designation.

Taxonomic history

Eubothroponera in Ponerinae, Ponerini: Donisthorpe, 1943c: 644.

Eubothroponera in Ponerinae, Platythyreini: Brown, 1952f: 2.

Eubothroponera as junior synonym of *Platythyrea*: Brown, 1975: 6; Taylor & Brown, D.R. 1985: 37.

Genus references: see above.

Genera *incertae sedis* in Ponerinae

Genus **ARCHIPONERA*

**Archiponera* Carpenter, 1930: 27. Type-species: **Archiponera wheeleri*, by original designation.

Taxonomic history

**Archiponera* in Ponerinae, Ectatommini: Wheeler, W.M. 1930b: 13 (in text).

**Archiponera* in Ponerinae, **Archiponerini*: Dlussky & Fedoseeva, 1988: 78.

**Archiponera* in Ponerinae, Ponerini: Carpenter, 1930: 27; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164; Bolton, 1995b: 75.

Genus **PONEROPSIS*

**Poneropsis* Heer, 1867: 19. Type-species: **Ponera fuliginosa*, by subsequent designation of Wheeler, W.M. 1911b: 171.

Taxonomic history

**Poneropsis incertae sedis* in Ponerinae: Dalla Torre, 1893: 52.

**Poneropsis* in Ponerinae: Handlirsch, 1907: 880.

**Poneropsis* in Ponerinae, Ponerini: Donisthorpe, 1943c: 685; all subsequent authors; Bolton, 1994: 164; Bolton, 1995b: 363.

Genus references

Dalla Torre, 1893: 52 (catalogue); Taylor, 1964: 135 (review of genus).

Genus **PROTOPONE*

**Protopone* Dlussky, 1988: 52. Type-species: **Protopone primigena*, by original designation.

Taxonomic history

**Protopone* in Ponerinae: Dlussky, 1988: 52.

**Protopone* in Ponerinae, Ponerini: Dlussky & Fedoseeva, 1988: 78; Bolton, 1994: 164; Bolton, 1995b: 369.

Collective group name in Ponerinae

**PONERITES*

**Ponerites* Dlussky, 1981: 67 [collective group name].

Taxonomic history

**Ponerites* in Ponerinae: Ponerini: Dlussky, 1981: 67; Bolton, 1995b: 363.

SUBFAMILY ECTATOMMINAE stat. n.

Subfamily ECTATOMMINAE stat. n.

Ectatommini Emery, 1895e: 767. Type-genus: *Ectatomma*. [*Taxonomy*, p. 45.]

Tribes: Ectatommini, Typhlomymecini.

Genus (extinct) *incertae sedis* in Ectatomminae: **Canapone*.

Tribe ECTATOMMINI

Ectatommini Emery, 1895e: 767. Type-genus: *Ectatomma*.

Taxonomic history

Ectatommini as tribe of Pachycondylinae: Ashmead, 1905b: 382.

Ectatommini as tribe of Ponerinae: Emery, 1895e: 767 [Ectatommini]; Emery, 1901a: 36 [Ectatommini]; Wheeler, W.M. 1910d: 134 [Ectatommini]; Emery, 1911b: 30; Wheeler, W.M. 1915e: 33; Forel, 1917: 236; Gallardo, 1918: 7; Wheeler, W.M. 1922a: 638; Brown, 1958b: 175; Kusnezov, 1964: 50; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10; Jaffe, 1993: 8; Bolton, 1994: 164. [*Taxonomy*, p. 46.]

Junior synonym of ECTATOMMINI

Stictoponerini Arnol'di, 1930c: 161. Type-genus: *Stictoponera* (junior synonym of *Gnamptogenys*).

Taxonomic history

Stictoponerini as subtribe of Ectatommini: Arnol'di, 1930c: 161.

Stictoponerini as junior synonym of Ectatommini: Taylor, 1980b: 354; Bolton, 1994: 164.

Genera (extant): *Ectatomma*, *Gnamptogenys*, *Rhytidoponera*.

Genera (extinct) *incertae sedis*: **Electroponera*.

Tribe references

Wheeler, W.M. 1910d: 134 (diagnosis); Emery, 1911b: 30 (diagnosis, genera key); Forel, 1917: 236 (synoptic classification); Gallardo, 1918: 11 (Argentina, key); Wheeler, W.M. 1922a: 642 (genera key); Brown, 1958b: 185 (all genera revision, key); Wheeler, G.C. & Wheeler, J. 1976: 49 (larvae, review & synthesis); Hölldobler & Wilson, 1990: 10 (synoptic classification); Brandão, 1991: 389 (Neotropical, synoptic classification); Kugler, C. 1991: 155 (sting structure, phylogeny); Bolton, 1994: 164 (synoptic classification); Lattke, 1994: 105 (phylogeny); Bolton, 1995a: 1042 (census); Bolton, 1995b: 11 (catalogue); Keller, 2000: 59 (phylogeny).

See also general references under PONERINAE.

Genera of Ectatommini

Genus ECTATOMMA

Ectatomma Smith, F. 1858b: 102. Type-species: *Formica tuberculata*, by subsequent designation of Bingham, 1903: 82.

Taxonomic history

Ectatomma in Poneridae: Smith, F. 1858b: 102; Smith, F. 1871: 324.

Ectatomma in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 14 [Poneridae]; Mayr, 1868b: 75 [Poneridae]; Dalla Torre, 1893: 23.

Ectatomma in Ponerinae, Ponerini: Forel, 1895a: 112; Forel, 1899: 5; Forel, 1900c: 316.

Ectatomma in Pachycondylinae, Ectatommini: Ashmead, 1905b: 382.

Ectatomma in Ponerinae, Ectatommini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 41; Wheeler, W.M. 1915e: 33; Forel, 1917: 236; Gallardo, 1918: 27; Wheeler, W.M. 1922a: 643; all subsequent authors.

Genus references

Roger, 1863b: 17 (catalogue); Mayr, 1863: 409 (catalogue); Mayr, 1865: 14 (diagnosis); Mayr, 1867a: 87 (diagnosis); Dalla Torre, 1893: 23 (catalogue); Emery, 1911b: 41 (diagnosis, subgenera key, catalogue); Gallardo, 1918: 30 (Argentina species key); Kusnezov, 1957b: 13 (partial key); Brown, 1958b: 206 (review of genus, key); Kempf, 1972a: 104 (Neotropical catalogue); Smith, D.R. 1979: 1336 (North America catalogue); Kugler, C. & Brown, 1982: 6 (all species key); Brandão, 1991: 341 (catalogue); Fernández, 1991: 551 (Colombia species key); Lattke, 1994: 109; Bolton, 1995a: 1049 (census); Bolton, 1995b: 186 (catalogue).

Genus GNAMPTOGENYS

Gnamptogenys Roger, 1863a: 174. Type-species: *Ponera tornata*, by subsequent designation of Emery, 1911b: 44.

Taxonomic history

[Type-species not *Ectatomma concinna*, unjustified subsequent designation by Wheeler, W.M. 1911b: 164; see Emery, 1912c: 271 and Wheeler, W.M. 1913a: 79.]

Gnamptogenys in Ponerinae: Mayr, 1865: 15 [Poneridae].

Gnamptogenys in Pachycondylinae, Ectatommini: Ashmead, 1905b: 382.

Gnamptogenys in Ponerinae, Ectatommini: Emery, 1895e: 767; Emery, 1911b: 44; Forel, 1917: 236; Wheeler, W.M. 1922a: 643; all subsequent authors.

Gnamptogenys as subgenus of *Ectatomma*: Mayr, 1887: 540; Dalla Torre, 1893: 23; Emery, 1895e: 767; Forel, 1895a: 113; Forel, 1899: 7; Wheeler, W.M. 1910d: 135; Emery, 1911b: 44; Gallardo, 1918: 42; Wheeler, W.M. 1922a: 644; Borgmeier, 1923: 60; Kusnezov, 1956: 14.

Gnamptogenys as genus: Roger, 1863a: 174; Forel, 1917: 236; Brown, 1958b: 211; all subsequent authors.

Junior synonyms of GNAMPTOGENYS

Stictoponera Mayr, 1887: 539 [as subgenus of *Ectatomma*]. Type-species: *Ponera coxalis*, by subsequent

designation of Bingham, 1903: 82.

Taxonomic history

Stictoponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Stictoponera in Ponerinae, Ectatommini: Emery, 1895e: 767; Emery, 1911b: 47; Forel, 1917: 236; Wheeler, W.M. 1922a: 642; Donisthorpe, 1943d: 728.

Stictoponera as subgenus of *Ectatomma*: Mayr, 1887: 539; Dalla Torre, 1893: 23; Emery, 1895e: 767; Forel, 1900c: 316; Bingham, 1903: 82; Wheeler, W.M. 1910d: 135.

Stictoponera as genus: Emery, 1911b: 47; Forel, 1917: 236; Wheeler, W.M. 1922a: 642; Donisthorpe, 1943d: 728.

Stictoponera as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Holcoponera Mayr, 1887: 540 [as subgenus of *Ectatomma*]. Type-species: *Gnamptogenys striatula*, by subsequent designation of Emery, 1911b: 40.

Taxonomic history

Holcoponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Holcoponera in Ponerinae, Ectatommini: Emery, 1895e: 767; Emery, 1911b: 40; Forel, 1917: 236; Gallardo, 1918: 21; Wheeler, W.M. 1922a: 643; all subsequent authors.

Holcoponera as subgenus of *Ectatomma*: Mayr, 1887: 540; Dalla Torre, 1893: 23; Emery, 1895e: 767; Wheeler, W.M. 1910d: 135.

Holcoponera as genus: Emery, 1902a: 181; Emery, 1911b: 40; Forel, 1917: 236; Gallardo, 1918: 21; Wheeler, W.M. 1922a: 643; Borgmeier, 1923: 55; Santschi, 1929c: 437; Kusnezov, 1956: 14.

Holcoponera as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Alfaria Emery, 1896b: 177 (diagnosis in key). Type-species: *Alfaria simulans*, by original designation.

Taxonomic history

[*Alfaria* also described as new by Emery, 1896c: 41.]

Alfaria in Ponerinae, Ponerini: Forel, 1899: 3.

Alfaria in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Alfaria in Ponerinae, Ectatommini: Wheeler, W.M. 1910d: 135; Emery, 1911b: 46; Forel, 1917: 236; Wheeler, W.M. 1922a: 642; all subsequent authors.

Alfaria as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Poneracantha Emery, 1897c: 547 [as subgenus of *Ectatomma*]. Type-species: *Ectatomma (Holcoponera) bispinosum*, by original designation.

Taxonomic history

Poneracantha as subgenus of *Ectatomma*: Emery, 1911b: 43; Forel, 1917: 236; Wheeler, W.M. 1922a: 643.

Poneracantha as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Rhopalopone Emery, 1897c: 549. Type-species: *Rhopalopone epinotalis*, by monotypy.

Taxonomic history

Rhopalopone in Ponerinae, Ponerini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 135.

Rhopalopone in Ponerinae, Ectatommini: Emery, 1911b: 34 [subtribe Typhlomymecini]; Forel, 1917: 236; Wheeler, W.M. 1922a: 642; all subsequent authors.

Rhopalopone as genus: Emery, 1911b: 34; Wheeler, W.M. 1922a: 642; Borgmeier, 1923: 54.

Rhopalopone as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Emeryella Forel, 1901c: 334. Type-species: *Emeryella schmitti*, by monotypy.

Taxonomic history

Emeryella in Pachycondyliinae, Amblyoponini: Ashmead, 1905b: 283.

Emeryella in Ponerinae, Ectatommini: Wheeler, W.M. 1910d: 135; Emery, 1911b: 46; Forel, 1917: 236; Wheeler, W.M. 1922a: 643; Wheeler, W.M. 1930b: 13; all subsequent authors.

Emeryella as junior synonym of *Gnamptogenys*: Brown, 1958b: 211.

Mictoponera Forel, 1901c: 372 [as subgenus of *Ectatomma*]. Type-species: *Ectatomma (Mictoponera) diehlii*, by monotypy.

Taxonomic history

Mictoponera as subgenus of *Ectatomma*: Forel, 1900c: 372; Wheeler, W.M. 1910d: 135.

Mictoponera as junior synonym of *Rhopalopone*: Emery, 1911b: 34.

Parectatomma Emery, 1911b: 44 [as subgenus of *Ectatomma*]. Type-species: *Ectatomma triangulare*, by original designation.

Taxonomic history

Parectatomma as subgenus of *Ectatomma*: Emery, 1911b: 44; Creighton, 1950a: 35; Kusnezov, 1956: 14.

Parectatomma as subgenus of *Gnamptogenys*: Forel, 1917: 236; Wheeler, W.M. 1922a: 643.

Parectatomma as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Spaniopone Wheeler, W.M. & Mann, 1914: 11. Type-species: *Spaniopone haytiana*, by monotypy.

Taxonomic history

Spaniopone in Ponerinae, Proceratiini: Wheeler, W.M. & Mann, 1914: 13; Wheeler, W.M. 1916d: 36; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943d: 727.

Spaniopone in Ponerinae, Ectatommini: Emery, 1919b: 107.

Spaniopone as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Wheeleripone Mann, 1919: 282. Type-species: *Wheeleripone albiclava*, by original designation.

Taxonomic history

Wheeleripone in Ponerinae, Ectatommini: Wheeler, W.M. 1922a: 642; Donisthorpe, 1943d: 736.

Wheeleripone as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Opisthoscyphus Mann, 1922: 4. Type-species: *Opisthoscyphus scabrosus* (junior synonym of *Gnamptogenys minuta*), by original designation.

Taxonomic history

Opisthoscyphus in Ponerinae, Ectatommini: Wheeler, W.M. 1930b: 13; Donisthorpe, 1943c: 678.

Opisthoscyphus as junior synonym of *Alfaria*: Brown, in Borgmeier, 1957: 115.

Commatesta Santschi, 1929c: 476 [as subgenus of *Ectatomma*]. Type-species: *Ectatomma (Parectatomma) bruchi*, by original designation.

Taxonomic history

Commatesta as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Tammoteca Santschi, 1929c: 476 [as subgenus of *Ectatomma*]. Type-species: *Ectatomma concinnum*, by original designation.

Taxonomic history

Tammoteca as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Barbourella Wheeler, W.M. 1930b: 10 [as subgenus of *Emeryella*]. Type-species: *Emeryella (Barbourella) banksi*, by original designation.

Taxonomic history

Barbourella as junior synonym of *Gnamptogenys*: Brown, 1958b: 212.

Genus references

Roger, 1863b: 19 (catalogue); Mayr, 1863: 422 (catalogue); Mayr, 1865: 15 (diagnosis); Mayr, 1870b: 963 (all species key); Mayr, 1887: 540 (diagnosis); Emery, 1889: 494 (*Ectatomma (Stictoponera)* species key); Emery, 1896c: 43, 44 (*G. (Holcoponera)*, *G. (Gnamptogenys)* species keys; Forel, 1900c: 316 (India & Sri Lanka species key); Bingham, 1903: 82 (India, Sri Lanka & Burma species key); Emery, 1911b: 34 (*Rhopalopone* diagnosis, catalogue); Emery, 1911b: 40 (*Holcoponera* diagnosis, catalogue); Emery, 1911b: 43 (*Ectatomma (Poneracantha)* diagnosis, catalogue); Emery, 1911b: 44 (*Ectatomma (Parectatomma)* & *E. (Gnamptogenys)* diagnoses, catalogues); Emery, 1911b: 46 (*Emeryella* diagnosis, catalogue); Emery, 1911b: 46 (*Alfaria* diagnosis, catalogue); Emery, 1911b: 47 (*Stictoponera* diagnosis, catalogue); Gallardo, 1918: 22, 42 (Argentina species key); Mann, 1919: 286 (*Wheeleripone* species key); Wheeler, W.M. 1924b: 240 (*Rhopalopone* species key); Santschi, 1929c: 471 (*Holcoponera* species key); Chapman & Capco, 1951: 26, 29 (Asia *Rhopalopone*, *Stictoponera* checklists); Brown, 1954d: 1 (*G. coxalis* group species); Brown, 1956: 489 (*Holcoponera* species notes); Brown, 1958b: 211 (revision of genus, all species keys); Brown, 1958b: 230 (New World species revision, key); Brown, 1958b: 237 (Old World species revision, key); Kempf, 1972a: 111 (Neotropical catalogue); Smith, D.R. 1979: 1337 (North America catalogue); Taylor & Brown, D.R. 1985: 30 (Australia catalogue); Taylor, 1987a: 28 (Australia checklist); Brandão & Lattke, 1990: 489 (*Alfaria* group, status); Lattke, 1990b: 22 (Venezuela species key); Hölldobler & Wilson, 1990: 10 (synoptic classification); Brandão, 1991: 344 (Neotropical catalogue); Lattke, 1992: 123 (*G. minuta* group, key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 208 (catalogue); Lattke, 1995: 149 (New World species revision, key); Wu, J. & Wang, 1995: 36 (China species key); Xu & Zhang, 1996: 56 (China species key); Shattuck, 1999: 185 (Australia synopsis); Zhou, 2001: 31 (China, Guangxi species key).

Genus RHYTIDOPONERA

Rhytidoponera Mayr, 1862: 731 [as subgenus of *Ectatomma*]. Type-species: *Ponera araneoides*, by subsequent designation of Emery, 1911b: 37.

Taxonomic history

[Type-species not *Ponera metallica*, unjustified subsequent designation by Wheeler, W.M. 1911b: 172; see Emery, 1912c: 271 and Wheeler, W.M. 1913a: 79.]

Rhytidoponera in Pachycondylinae, Ectatommini: Ashmead, 1905b: 382.

Rhytidoponera in Ponerinae, Ectatommini: Emery, 1895e: 767; Emery, 1911b: 26; Forel, 1917: 236; Wheeler, W.M. 1922a: 643; all subsequent authors.

Rhytidoponera as junior synonym of *Ectatomma*: Roger, 1863b: 17.

Rhytidoponera as subgenus of *Ectatomma*: Mayr, 1862: 731; Mayr, 1863: 453; Mayr, 1887: 539; Dalla Torre, 1893: 23; Emery, 1895e: 767; Wheeler, W.M. 1910d: 135.

Rhytidoponera as genus: Emery, 1897c: 547; Emery, 1911b: 36; Wheeler, W.M. 1913a: 79; Forel, 1917: 236; Wheeler, W.M. 1922a: 643; all subsequent authors.

Junior synonym of RHYTIDOPONERA

Chalcoconera Emery, 1897c: 548. Type-species: *Ponera metallica*, by subsequent designation of Emery, 1911b: 39.

Taxonomic history

Chalcoconera in Pachycondylinae, Ectatommini: Ashmead, 1905b: 382.

Chalcoconera in Ponerinae, Ectatommini: Emery, 1911b: 38; Forel, 1917: 236; Wheeler, W.M. 1922a: 643; Donisthorpe, 1943c: 632.

Chalcoconera as subgenus of *Rhytidoponera*: Emery, 1911b: 38; Forel, 1917: 236.

Chalcoconera as genus: Emery, 1897c: 548; Wheeler, W.M. 1922a: 643; Clark, 1934c: 58; Clark, 1941: 83; Chapman & Capco, 1951: 25.

Chalcoconera as junior synonym of *Rhytidoponera*: Brown, 1953b: 2; Brown, 1958b: 198; all subsequent authors.

Genus references

Mayr, 1867a: 88 (diagnosis); Mayr, 1876: 90 (Australia species key); Mayr, 1887: 539 (diagnosis); Emery,

1911b: 36 (diagnosis, catalogue); Emery, 1912a: 77 (*R. metallica* group revision, key); Clark, 1936: 16 (Australia species key); Chapman & Capco, 1951: 25, 27 (Asia *Chalcoponera*, *Rhytidoponera* checklists); Brown, 1954c: 2 (*R. impressa* & *R. metallica* groups, species); Brown, 1958b: 197, 288 (review of genus, New Caledonia species key); Wilson, 1958b: 304 (Melanesia & Moluccas species key); Ward, 1980: 478 (Australia & New Guinea *R. impressa* group, key); Ward, 1984: 135 (New Caledonia species key); Taylor & Brown, D.R. 1985: 40 (Australia catalogue); Taylor, 1987a: 67 (Australia, New Caledonia & New Zealand checklist); Bolton, 1995a: 1052 (census); Bolton, 1995b: 378 (catalogue); Shattuck, 1999: 204 (Australia synopsis).

Genus *incertae sedis* in Ectatommini

Genus **ELECTROPONERA*

**Electroponera* Wheeler, W.M. 1915e: 34. Type-species: **Electroponera dubia*, by monotypy.

Taxonomic history

**Electroponera* in Ponerinae, Ectatommini: Wheeler, W.M. 1915e: 34; Dlussky & Fedoseeva, 1988: 78; Latke, 1994: 116; Bolton, 1995b: 187.

Tribe TYPHLOMYRMECINI

Typhlomyrmecini Emery, 1911b: 32. Type-genus: *Typhlomyrmex*.

Taxonomic history

Typhlomyrmecini as subtribe of Ectatommini: Emery, 1911b: 32 [Typhlomyrmecini]; Gallardo, 1918: 11 [Typhlomyrmecini].

Typhlomyrmecini as tribe of Ponerini: Brown, 1953a: 104 [Typhlomyrmecini]; Kusnezov, 1964: 49 [Typhlomyrmecini]; Brown, 1965a: 65; Kempf, 1972a: 262 [Typhlomyrmecini]; Wheeler, G.C. & Wheeler, J. 1976: 48; all subsequent authors. [*Taxonomy*, p. 46.]

Genus: *Typhlomyrmex*.

Tribe and genus references

Roger, 1863b: 21 (catalogue); Mayr, 1863: 457 (catalogue); Mayr, 1865: 15 (diagnosis); Dalla Torre, 1893: 16 (catalogue); Emery, 1911b: 32, 33 (tribe, genus diagnoses, catalogue); Gallardo, 1918: 14 (Argentina species key); Wheeler, W.M. 1925a: 3 (all species key); Brown, 1953a: 104 (review of tribe); Brown, 1965a: 66, 77 (review of tribe and genus, all species revision, key); Kempf, 1972a: 256 (catalogue); Wheeler, G.C. & Wheeler, J. 1976: 48 (larvae, review & synthesis); Wheeler, G.C. & Wheeler, J. 1985: 256 (synoptic classification); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Bolton, 1994: 164 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 16, 422 (catalogue).

See also general references under PONERINAE.

Genus of Typhlomyrmecini

Genus *TYPHLOMYRMEX*

Typhlomyrmex Mayr, 1862: 714 (diagnosis in key), 736. Type-species: *Typhlomyrmex rogenhoferi*, by monotypy.

Taxonomic history

[*Typhlomyrmex* Gistel, 1856: 447, *nomen nudum*; see Wheeler, W.M. 1911a: 858 and Brown, 1965a: 66.]

Typhlomyrmex in Ponerinae: Mayr, 1862: 714 (in key) [Poneridae]; Mayr, 1865: 15 [Poneridae]; Dalla Torre, 1893: 16.

Typhlomyrmex in Ponerinae, Ponerini: Forel, 1895a: 111; Forel, 1899: 2.

Typhlomyrmex in Ponerinae, Ectatommini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Emery, 1911b: 33 [subtribe Typhlomyrmecini]; Forel, 1917: 236; Gallardo, 1918: 13; Wheeler, W.M. 1922a: 642; Donisthorpe, 1943d: 734.

Typhlomyrmex in Ponerinae, Typhlomyrmecini: Brown, 1965a: 65; Kempf, 1972a: 256; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10; Jaffe, 1993: 8; Bolton, 1994: 164.

Genus references: see above.

Genus *incertae sedis* in Ectatomminae

Genus **CANAPONE*

**Canapone* Dlussky, 1999b: 75. Type-species: **Canapone dentata*, by original designation.

Taxonomic history

**Canapone* in Ponerinae: Dlussky, 1999b: 76.

SUBFAMILY HETEROPONERINAE subfam. n.

Subfamily HETEROPONERINAE subfam. n.

Type-genus: *Heteroponera*. [*Taxonomy*, p. 46.]

Taxonomic history

Heteroponerini Jaffe, 1993: 8 [as tribe of Ponerinae]. Unavailable name; proposed without diagnosis.

Heteroponerini Fernández, Palacio, MacKay & MacKay, 1996: 362 [as tribe of Ponerinae]. Unavailable

name; proposed without diagnosis.

Tribe: Heteroponerini.

Tribe **HETEROPONERINI** trib. n.

Genera: *Acanthoponera*, *Heteroponera* [type-genus].

Incertae sedis: *Aulacopone*.

Tribe reference

See under Ectatommini and general references under PONERINAE.

Genera of Heteroponerini

Genus *ACANTHOPONERA*

Acanthoponera Mayr, 1862: 732 [as subgenus of *Ectatomma*]. Type-species: *Ponera mucronata*, by subsequent designation of Wheeler, W.M. 1911b: 158.

Taxonomic history

Acanthoponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Acanthoponera in Ponerinae, Ectatommini: Emery, 1895e: 767; Emery, 1911b: 35; Forel, 1917: 236; Gallardo, 1918: 16; Wheeler, W.M. 1922a: 643; all subsequent authors.

Acanthoponera as subgenus of *Ectatomma*: Mayr, 1862: 732; Roger, 1863b: 17; Mayr, 1863: 394; Mayr, 1887: 540; Dalla Torre, 1893: 23; Wheeler, W.M. 1910d: 135.

Acanthoponera as genus: Emery, 1895c: 346; Emery, 1911b: 35; Forel, 1917: 236; Gallardo, 1918: 16; Wheeler, W.M. 1923b: 179; Donisthorpe, 1943c: 619; Kusnezov, 1956: 13; Brown, 1958b: 188; all subsequent authors.

Genus references

Mayr, 1887: 540 (diagnosis); Emery, 1911b: 35 (diagnosis, catalogue); Wheeler, W.M. 1923b: 190 (all species key); Brown, 1958b: 188 (review of genus & species); Kempf, 1972a: 9 (catalogue); Kugler, C. 1991: 155 (sting structure); Bolton, 1995b: 53 (catalogue).

Genus *HETEROPONERA*

Heteroponera Mayr, 1887: 532. Type-species: *Heteroponera carinifrons*, by monotypy.

Taxonomic history

Heteroponera in Ponerinae: Dalla Torre, 1893: 43.

Heteroponera in Pachycondyliinae, Pachycondyliini: Ashmead, 1905b: 382.

Heteroponera in Ponerinae, Ectatommini: Emery, 1911b: 35; Forel, 1917: 236; all subsequent authors.

Heteroponera as subgenus of *Acanthoponera*: Forel, 1917: 236.

Heteroponera as junior synonym of *Acanthoponera*: Emery, 1895e: 767; Emery, 1911b: 35; Wheeler, W.M. 1922a: 643; Wheeler, 1923e: 179.

Heteroponera as genus: Brown, 1952d: 70; Kusnezov, 1956: 13; Brown, 1958b: 194; all subsequent authors.

Junior synonyms of *HETEROPONERA*

Paranomopone Wheeler, W.M. 1915b: 117. Type-species: *Paranomopone relictata*, by monotypy.

Taxonomic history

Paranomopone in Ponerinae, Ectatommini: Forel, 1917: 236; Emery, 1919b: 106; Wheeler, W.M. 1922a: 642; Wheeler, W.M. 1930b: 13; Donisthorpe, 1943c: 681.

Paranomopone as junior synonym of *Heteroponera*: Brown, in Borgmeier, 1957: 112; Brown, 1958b: 194.

Anacanthoponera Wheeler, W.M. 1923b: 176 (in text) [as subgenus of *Acanthoponera*]. Type-species: *Ponera dolo*, by original designation.

Taxonomic history

Anacanthoponera as junior synonym of *Heteroponera*: Brown, 1952d: 70; Brown, 1958b: 194.

Genus references

Dalla Torre, 1893: 43 (catalogue); Emery, 1911b: 35 (diagnosis, catalogue as part of *Acanthoponera*); Wheeler, W.M. 1923b: 190 (all species key as part of *Acanthoponera*); Brown, 1958b: 194, 196 (review of genus, Australia-New Zealand species key, New World species key); Brown, 1958c: 17 (New Zealand species); Kempf, 1962a: 31 (Neotropical species key); Kempf, 1972a: 117 (Neotropical catalogue); Taylor & Brown, D.R. 1985: 30 (Australia catalogue); Taylor, 1987a: 28 (Australia, New Zealand checklist); Fernández, 1993: 250 (Colombia species key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 212 (catalogue); Shattuck, 1999: 186 (Australia synopsis).

Genus *incertae sedis* in Heteroponerini

Genus *AULACOPONE*

Aulacopone Arnol'di, 1930a: 139. Type-species: *Aulacopone relictata*, by monotypy.

Taxonomic history

[*Aulacopone* also described as new by Arnol'di, 1930c: 159.]

Aulacopone in Ponerinae, Ectatommini: Arnol'di, 1930a: 143; all subsequent authors; Bolton, 1995b: 77.

Genus references

Brown, 1958b: 206 (review of genus); Taylor, 1980b: 353 (review of genus); Lattke, 1994: 113 (notes).

SUBFAMILY PARAPONERINAE stat. n.

Subfamily PARAPONERINAE stat. n.

Paraponerii Emery, 1901a: 36. Type-genus: *Paraponera*. [*Taxonomy*, p. 47.]

Tribe: Paraponerini.

Tribe PARAPONERINI

Paraponerii Emery, 1901a: 36. Type-genus: *Paraponera*.

Taxonomic history

Paraponerini as junior synonym of Ectatommini: Brown, 1958b: 176; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Paraponerini as tribe of Ponerinae: Emery, 1901a: 36 [Paraponerii]; Emery, 1911b: 27; Forel, 1917: 236; Wheeler, W.M. 1922a: 637; Jaffe, 1993: 7; Lattke, 1994: 111; Bolton, 1995b: 14.

Genus: *Paraponera*.

Tribe and genus references

Mayr, 1862: 730 (diagnosis); Roger, 1863b: 18 (catalogue); Mayr, 1863: 440 (catalogue); Mayr, 1865: 14 (diagnosis); Dalla Torre, 1893: 18 (catalogue); Emery, 1911b: 27 (diagnosis, catalogue); Brown, 1958b: 205 (review of genus); Kempf, 1972a: 181 (catalogue); Kugler, C. 1991: 154 (sting structure); Lattke, 1994: 111 (review of genus, phylogeny); Bolton, 1995a: 1051 (census); Bolton, 1995b: 14, 312 (catalogue).

See also general references under PONERINAE.

Genus of Paraponerini

Genus PARAPONERA

Paraponera Smith, F. 1858b: 100. Type-species: *Formica clavata*, by monotypy.

Taxonomic history

Paraponera in Poneridae: Smith, F. 1858b: 100.

Paraponera in Ponerinae: Mayr, 1862: 714 [Poneridae]; Mayr, 1865: 14 [Poneridae]; Dalla Torre, 1893: 18.

Paraponera in Ponerinae, Ponerini: Forel, 1895a: 111; Forel, 1899: 10.

Paraponera in Pachycondyliinae, Ectatommini: Ashmead, 1905b: 382.

Paraponera in Ponerinae, Ectatommini: Emery, 1895e: 767; Wheeler, W.M. 1910d: 135; Brown, 1954b: 25 (in text); Brown, 1958b: 205; Kusnezov, 1964: 50; Kempf, 1972a: 181; Wheeler, G.C. & Wheeler, J. 1985: 256; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Paraponera in Ponerinae, Paraponerini: Emery, 1911b: 27; Forel, 1917: 236; Wheeler, W.M. 1922a: 641; Donisthorpe, 1943c: 681; Jaffe, 1993: 7; Lattke, 1994: 111.

Genus references: see above.

SUBFAMILY PROCERATIINAE stat. n.

Subfamily PROCERATIINAE stat. n.

Proceratii Emery, 1895e: 765. Type-genus: *Proceratium*. [*Taxonomy*, p. 48.]

Tribes: Probolomyrmecini, Proceratiini.

Tribe PROCERATIINI

Proceratii Emery, 1895e: 765. Type-genus: *Proceratium*.

Taxonomic history

Proceratiini as tribe of Dorylinae: Emery, 1895e: 765 [Proceratii].

Proceratiini as junior synonym of Ectatommini: Brown, 1958b: 176; Taylor, 1980b: 354; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Proceratiini as tribe of Ponerinae: Emery, 1901a: 36 [Proceratii]; Wheeler, W.M. 1910d: 136 [Proceratii]; Ashmead, 1905b: 382; Emery, 1911b: 49; Wheeler, W.M. 1915e: 27; Arnold, 1915: 33; Forel, 1917: 236; Wheeler, W.M. 1922a: 638; Kusnezov, 1964: 51; Wheeler, G.C. & Wheeler, J. 1976: 49; Wheeler, G.C. & Wheeler, J. 1985: 256; Jaffe, 1993: 8; Lattke, 1994: 112; Bolton, 1995b: 15. [*Taxonomy*, p. 49.]

Junior synonym of PROCERATIINI

Discothyrinae Clark, 1951: 15 (in key). Type-genus: *Discothyrea*.

Taxonomic history

Discothyrinae as subfamily of Formicidae: Clark, 1951: 15.

Discothyrinae as junior synonym of Ectatommini: Bolton, 1994: 164.

Discothyrinae as junior synonym of Proceratiini: Lattke, 1994: 112 (synonymy implied (*Discothyrea* included in Proceratiini) but not stated); Bolton, 1995b: 10.

Genera (extant): *Discothyrea*, *Proceratium*.

Genus (extinct): **Bradoponera*.

Tribe references

Wheeler, W.M. 1910d: 135 (diagnosis); Emery, 1911b: 49 (diagnosis, genera key); Arnold, 1915: 33

(diagnosis, South Africa genera key); Forel, 1917: 236 (synoptic classification); Wheeler, W.M. 1922a: 644, 761 (genera key, Afrotropical catalogue); Leston, 1971: 119 (Ghana); Wheeler, G.C. & Wheeler, J. 1976: 49 (larvae, review & synthesis); Kugler, C. 1991: 158 (sting structure); Lattke, 1994: 112 (phylogeny); Bolton, 1995b: 15 (catalogue).

See also general references under PONERINAE.

Genera of Proceratiini

Genus **BRADOPONERA*

**Bradoponera* Mayr, 1868b: 73. Type-species: **Bradoponera meieri*, by monotypy.

Taxonomic history

**Bradoponera* in Ponerinae: Mayr, 1868b: 73 [Poneridae]; Dalla Torre, 1893: 18.

**Bradoponera* in Ponerinae, Ectatommini: Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

**Bradoponera* in Ponerinae, Proceratiini: Wheeler, W.M. 1915e: 32; Donisthorpe, 1943c: 628; Lattke, 1994: 116; Bolton, 1995b: 22.

Genus references

Lattke, 1994: 116 (notes); Bolton, 1995b: 82 (catalogue).

Genus *DISCOTHYREA*

Discothyrea Roger, 1863a: 176. Type-species: *Discothyrea testacea*, by monotypy.

Taxonomic history

Discothyrea in Ponerinae: Mayr, 1865: 13 [Poneridae]; Dalla Torre, 1893: 18.

Discothyrea in Dorylinae, Proceratiini: Emery, 1895e: 765.

Discothyrea in Ponerinae, Proceratiini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 136; Emery, 1911b: 51; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943c: 640; Chapman & Capco, 1951: 76; Kusnezov, 1964: 51; Wheeler, G.C. & Wheeler, J. 1985: 256; Jaffe, 1993: 8; Lattke, 1994: 112.

Discothyrea in Ponerinae, Ectatommini: Brown, 1958b: 248; Kempf, 1972a: 97; Smith, D.R. 1979: 1339; Dlussky & Fedoseeva, 1988: 78; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Junior synonyms of *DISCOTHYREA*

Prodiscothyrea Wheeler, W.M. 1916d: 33. Type-species: *Prodiscothyrea velutina*, by monotypy.

Taxonomic history

Prodiscothyrea in Ponerinae, Proceratiini: Wheeler, W.M. 1916d: 36; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943c: 687; Chapman & Capco, 1951: 77.

Prodiscothyrea as junior synonym of *Discothyrea*: Brown, 1958b: 248.

Pseudosysphincta Arnold, 1916: 161. Type-species: *Pseudosysphincta poweri*, by original designation.

Taxonomic history

Pseudosysphincta in Ponerinae, Proceratiini: Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943d: 723.

Pseudosysphincta as junior synonym of *Discothyrea*: Brown, 1958b: 248.

[*Pseudosphincta* Wheeler, W.M. 1922a: 645, incorrect subsequent spelling.]

Genus references

Roger, 1863b: 21 (catalogue); Mayr, 1865: 13 (diagnosis); Cresson, 1887: 259 (U.S.A., catalogue); Dalla Torre, 1893: 18 (catalogue); Emery, 1911b: 51 (diagnosis, catalogue); Arnold, 1916: 159 (diagnosis); Wheeler, W.M. 1922a: 761, 762 (Afrotropical *Discothyrea*, *Pseudosysphincta* catalogues); Weber, 1939: 99 (Neotropical species key); Chapman & Capco, 1951: 76, 77 (Asia *Discothyrea*, *Prodiscothyrea* checklists); Brown, 1958b: 248 (review of genus); Brown, 1958c: 19 (New Zealand species); Kempf, 1972a: 97 (Neotropical catalogue); Smith, D.R. 1979: 1339 (North America catalogue); Taylor & Brown, D.R. 1985: 29 (Australia catalogue); Taylor, 1987a: 24 (Australia, New Caledonia & New Zealand checklists); Morisita, Kubota, Onoyama, *et al.*, 1989: 16 (Japan species key); Lattke, 1994: 113 (Neotropical species); Bolton, 1995a: 1049 (census); Bolton, 1995b: 171 (catalogue); Shattuck, 1999: 184 (Australia synopsis).

Genus *PROCERATIUM*

Proceratium Roger, 1863a: 171. Type-species: *Proceratium silaceum*, by monotypy.

Taxonomic history

Proceratium in Ponerinae: Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 18.

Proceratium in Ponerinae, Ponerini: Forel, 1895a: 111.

Proceratium in Dorylinae, Proceratiini: Emery, 1895e: 765.

Proceratium in Ponerinae, Ectatommini: Brown, 1958b: 241; Kempf, 1972a: 211; Smith, D.R. 1979: 1338; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164.

Proceratium in Ponerinae, Proceratiini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 136; Emery, 1911b: 50; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Wheeler, G.C. & Wheeler, J. 1985: 256; Jaffe, 1993: 8; Lattke, 1994: 112.

Junior synonym of *PROCERATIUM*

Sysphingta Roger, 1863a: 175. Type-species: *Sysphingta micrommata*, by monotypy.

Taxonomic history

Sysphingta in Ponerinae: Mayr, 1865: 12 [Poneridae]; Dalla Torre, 1893: 18.

Sysphingta in Dorylinae, Proceratiini: Emery, 1895e: 765.

Sysphingta in Ponerinae, Proceratiini: Ashmead, 1905b: 382; Wheeler, W.M. 1910d: 136; Emery, 1911b: 50; Arnold, 1915: 34; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943d: 730.

Sysphingta as genus: Emery, 1895b: 262; Wheeler, W.M. 1910d: 136; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Creighton, 1950a: 40.

Sysphingta as junior synonym of *Proceratium*: Mayr, 1886c: 437; Dalla Torre, 1893: 18; Brown, in Borgmeier, 1957: 118; Brown, 1958b: 241; all subsequent authors.

[*Sysphincta* Mayr, 1865: 12 (and most subsequent authors), incorrect subsequent spelling.]

Genus references

Roger, 1863b: 16, 21 (catalogue); Mayr, 1863: 451, 455 (catalogue); Mayr, 1865: 12 (*Sysphingta*, *Proceratium* diagnoses); Cresson, 1887: 258 (U.S.A. catalogue); Dalla Torre, 1893: 18 (catalogue); Emery, 1911b: 50 (diagnosis, catalogue); Emery, 1911b: 50 (*Sysphingta* diagnosis, catalogue); Arnold, 1915: 34 (*Sysphingta* diagnosis); Emery, 1916b: 103 (Italy species key); Wheeler, W.M. 1922a: 761 (Afrotropical catalogue); Kratochvíl, Novák & Snoflák, 1944: 58, 88 (West Palaearctic species key); Creighton, 1950a: 39, 41 (North America *Proceratium*, *Sysphingta* species keys); Chapman & Capco, 1951: 77 (Asia *Proceratium*, *Sysphingta* checklists); Brown, 1958b: 241 (review of genus); Bernard, 1967: 81 (diagnosis); Snelling, 1967: 8 (New World species key); Kempf, 1972a: 211 (Neotropical catalogue); Brown, 1974a: 81 (species notes); Baroni Urbani, 1977b: 91 (European species, synopsis); Smith, D.R. 1979: 1338 (North America catalogue); Brown, 1980b: 342 (New World species key); Terron, 1981: 102 (Afrotropical species notes); Taylor & Brown, D.R. 1985: 39 (Australia catalogue); Taylor, 1987a: 65 (Australia checklist); Agosti & Collingwood, 1987: 264 (Balkans species key); Ward, 1988: 116 (New World species key); Morisita, Kubota, Onoyama, *et al.*, 1989: 14 (Japan species key); Brandão, 1991: 373 (Neotropical catalogue); Lattke, 1994: 113 (phylogeny); Bolton, 1995a: 1052 (census); Bolton, 1995b: 366 (catalogue); Shattuck, 1999: 203 (Australia synopsis); Xu, 2000d: 434 (China species key); Onoyama & Yoshimura, 2002: 31 (Japan species key).

Tribe PROBOLOMYRMECINI stat. n.

Probolomyrmecinae Perrault, 2000: 271. Type-genus: *Probolomyrmex*.

Taxonomic history

Probolomyrmecinae as subfamily of Formicidae: Perrault, 2000: 271 [Probolomyrmecinae]. [*Taxonomy*, p. 49.]

Tribe and genus references

Emery, 1911b: 52 (diagnosis, catalogue); Emery, 1911b: 53 (*Escherichia* diagnosis, catalogue); Arnold, 1915: 33 (diagnosis); Wheeler, W.M. 1922a: 761, 762 (Afrotropical *Probolomyrmex*, *Escherichia* catalogues); Taylor, 1965b: 352 (diagnosis, all species revision, key); Kempf, 1972a: 210 (Neotropical catalogue); Brown, 1975: 7 (diagnosis, review of genus); Taylor & Brown, D.R. 1985: 39 (Australia catalogue); Taylor, 1987a: 64 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1989: 13 (Japan species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 366 (catalogue); Agosti, 1995: 432 (Neotropical species key); O'Keefe & Agosti, 1998: 190 (Neotropical species key); Shattuck, 1999: 202 (Australia synopsis); Perrault, 2000: 253 (anatomy); Xu, 2000c: 214 (China species key).

See also general references under PONERINAE.

Genus of Probolomyrmecini

Genus PROBOLOMYRMEX

Probolomyrmex Mayr, 1901: 2. Type-species: *Probolomyrmex filiformis*, by monotypy.

Taxonomic history

Probolomyrmex in Dorylinae, Dorylini: Ashmead, 1905b: 381; Ashmead, 1906: 27.

Probolomyrmex in Ponerinae, Cerapachyini: Wheeler, W.M. 1910d: 137.

Probolomyrmex in Ponerinae, Proceratiini: Emery, 1911b: 52; Arnold, 1915: 33; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943c: 686; Chapman & Capco, 1951: 77.

Probolomyrmex in Ponerinae, Platythyreini: Brown, 1952f: 1; Brown, 1975: 7; Dlussky & Fedoseeva, 1988: 79; Hölldobler & Wilson, 1990: 10; Jaffe, 1993: 7; Bolton, 1994: 164.

Probolomyrmex in Probolomyrmecinae: Perrault, 2000: 271.

Probolomyrmex in Ponerinae, Probolomyrmecini: new status.

Junior synonym of PROBOLOMYRMEX

Escherichia Forel, 1910b: 245. Type-species: *Escherichia brevisrostris*, by monotypy.

Taxonomic history

Escheria in Ponerinae, Proceratiini: Emery, 1911b: 53; Forel, 1917: 236; Wheeler, W.M. 1922a: 645; Donisthorpe, 1943c: 644.

Escherichia in Ponerinae, Platythyreini: Brown, 1952f: 1.

Escherichia as junior synonym of *Probolomyrmex*: Taylor, 1965b: 346.

Genus references: see above.

Genera incertae sedis in poneromorph subfamilies

Genus *CRETOPONE

**Cretopone* Dlussky, 1975: 119. Type-species: **Cretopone magna*, by original designation.

Taxonomic history

- **Cretopone* in Ponerinae: Dlussky, 1975: 119.
- **Cretopone incertae sedis* in *Sphecomyrminae: Wilson, 1987: 49.
- **Cretopone* in *Armaniidae: Dlussky & Fedoseeva, 1988: 77.
- **Cretopone* in *Armaniinae: Bolton, 1994: 187.
- **Cretopone incertae sedis* in Aculeata: Grimaldi, Agosti & Carpenter, 1997: 7.
- **Cretopone* as junior synonym of **Sphecomyrma*?: Hölldobler & Wilson, 1990: 9.
- **Cretopone* as genus: Dlussky, 1975: 119; Wilson, 1987: 49; Dlussky & Fedoseeva, 1988: 77; Bolton, 1994: 187; Bolton, 1995b: 166; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus *PETROPONE

- **Petropone* Dlussky, 1975: 119. Type-species: **Petropone petiolata*, by original designation.

Taxonomic history

- **Petropone* in Ponerinae: Dlussky, 1975: 119.
- **Petropone incertae sedis* in *Sphecomyrminae: Wilson, 1987: 49.
- **Petropone* in *Armaniidae: Dlussky & Fedoseeva, 1988: 77.
- **Petropone* in *Armaniinae: Bolton, 1994: 187.
- **Petropone incertae sedis* in Aculeata: Grimaldi, Agosti & Carpenter, 1997: 7.
- **Petropone* as junior synonym of **Sphecomyrma*?: Hölldobler & Wilson, 1990: 9.
- **Petropone* as genus: Carpenter, 1992: 493; Bolton, 1994: 187; Bolton, 1995b: 316 (catalogue); Grimaldi, Agosti & Carpenter, 1997: 7.

The myrmicomorph subfamilies [*Taxonomy*, p. 50]**SUBFAMILY AGROECOMYRMECINAE stat. n.****Subfamily AGROECOMYRMECINAE stat. n.**

- Agroecomyrmicini Carpenter, 1930: 34. Type-genus: **Agroecomymrrex*.

Taxonomic history

- Agroecomyrmecini as tribe of Myrmicinae: Carpenter, 1930: 34 [Agroecomyrmicini]; Brown & Kempf, 1968: 184; Dlussky & Fedoseeva, 1988: 80; all subsequent authors. [*Taxonomy*, p. 51.]

Tribe: Agroecomyrmecini.**Tribe AGROECOMYRMECINI**

- Agroecomyrmicini Carpenter, 1930: 34. Type-genus: **Agroecomymrrex*.

Genus (extant): *Tatuidris*.**Genera (extinct): **Agroecomymrrex*, **Eulithomyrmex*.****Tribe references**

- Brown & Kempf, 1968: 184 (diagnosis, revision of tribe); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1040 (census); Bolton, 1995b: 8 (catalogue).

Genera of Agroecomyrmecini**Genus *AGROECOMYRMEX**

- **Agroecomymrrex* Wheeler, W.M. 1910a: 265. Type-species: **Myrmica duisburgi*, by original designation.

Taxonomic history

- [**Agroecomymrrex* also described as new by Wheeler, W.M. 1915e: 56.]
- **Agroecomymrrex* in Myrmicinae, Myrmicini: Wheeler, W.M. 1915e: 56.
- **Agroecomymrrex* in Myrmicinae, Myrmecini: Donisthorpe, 1943c: 621.
- **Agroecomymrrex* in Myrmicinae, Agroecomyrmecini: Carpenter, 1930: 34; Brown & Kempf, 1968: 184; all subsequent authors.

Genus references

- Brown & Kempf, 1968: 184 (review of genus); Bolton, 1994: 105 (synoptic classification); Bolton, 1995b: 61 (catalogue).

Genus *EULITHOMYRMEX

- **Eulithomyrmex* Carpenter, 1935: 91.

Taxonomic history

- [Replacement name for **Lithomyrmex* Carpenter, 1930: 34; junior homonym of *Lithomyrmex* Clark, 1928: 30 (Formicidae).]
- **Eulithomyrmex* in Myrmicinae, Agroecomyrmecini: Brown & Kempf, 1968: 184; Bolton, 1994: 105; Bolton, 1995b: 189.

Homonym replaced by *EULITHOMYRMEX

- **Lithomyrmex* Carpenter, 1930: 34. Type-species: **Lithomyrmex rugosus*, by original designation.

Taxonomic history

- [Junior homonym of *Lithomyrmex* Clark, 1928: 30 (Formicidae).]
- **Lithomyrmex* in Myrmicinae, Agroecomyrmecini: Carpenter, 1930: 34.

Genus *TATUIDRIS*

Tatuidris Brown & Kempf, 1968: 186. Type-species: *Tatuidris tatusia*, by original designation.

Taxonomic history

Tatuidris in Myrmicinae, Agroecomyrmecini: Brown & Kempf, 1968: 186; all subsequent authors.

Genus references

Kempf, 1972a: 248 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 402 (catalogue); Bolton, 1998: 68 (anatomy, autapomorphies).

SUBFAMILY MYRMICINAE**Subfamily MYRMICINAE**

Myrmicites Lepeletier de Saint-Fargeau, 1835: 169. Type-genus: *Myrmica*.

Taxonomic history

Myrmicinae as group name: Lepeletier de Saint-Fargeau, 1835: 169 [Myrmicites]; Nylander, 1846: 877 [Myrmicae].

Myrmicinae as family: Smith, F. 1851: 4 [Myrmicidae]; Smith, F. 1861: 45 [Myrmicidae]; Smith, F. 1871: 324 [Myrmicidae]; André, 1882a: 125 [Myrmicidae]; Cresson, 1887: 93 [Myrmicidae]; Emery, 1894b: 383 [Myrmicidae]; Saunders, 1896: 18 [Myrmicidae]; Ashmead, 1905b: 383 [Myrmicidae]; Novák & Sadil, 1941: 71 [Myrmicidae]; Bernard, 1951: 1058 [Myrmicidae]; Bernard, 1953: 222 [Myrmicidae].

Myrmicinae as subfamily of Poneridae: Smith, F. 1858b: 114 [Myrmicidae].

Myrmicinae as tribe of Formicidae: André, 1874: 167 [Myrmicidae].

Myrmicinae as subfamily of Myrmicidae: Ashmead, 1905b: 383.

Myrmicinae as subfamily of Formicidae: Mayr, 1855: 290, 299 [Myrmicidae]; Smith, F. 1857: 70 [Myrmicidae]; Mayr, 1861: 21 [Myrmicidae]; Smith, F. 1862b: 33 [Myrmicidae]; Mayr, 1862: 738 [Myrmicidae]; Mayr, 1865: 17 [Myrmicidae]; Mayr, 1868b: 24 [Myrmicidae]; Forel, 1870: 307 [Myrmicidae]; Forel, 1874: 22 [Myrmicidae]; Emery, 1877a: 70 [Myrmicidae]; Forel, 1878: 367 [Myrmicidae]; Emery & Forel, 1879: 456 [Myrmicidae]; André, 1881: 64 [Myrmicidae]; Nasonov, 1889: 28 [Myrmicidae]; Forel, 1891b: 11 [Myrmicidae]; Forel, 1892g: 220 [Myrmicidae]; Forel, 1893a: 163; Dalla Torre, 1893: 53; Emery, 1895e: 768 [subfamily spelled Myrmicini]; Emery, 1896b: 179; Forel, 1899: 30; Forel, 1902b: 520; Bingham, 1903: 105; Wheeler, W.M. 1910d: 138; Emery, 1914a: 29; Wheeler, 1915g: 806 [Myrmicidae]; Wheeler, W.M. 1915e: 40; Donisthorpe, 1915: 74; Arnold, 1916: 166; Escherich, 1917: 2 [Myrmicini]; Forel, 1917: 240 [subfamily spelled Myrmicini]; Bondroit, 1918: 14 [Myrmicidae]; Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 124; Emery, 1921b: 3; Karavaiev, 1934: 59; Clark, 1951: 16; Brown, 1954b: 28; Wheeler, G.C. & Wheeler, J. 1972: 40; Brown, 1973b: 166; all subsequent authors. [*Taxonomy*, p. 52.]

Tribes: Ankylomyrmini, Attini, Basicerotini, Blepharidattini, Cataulacini, Cephalotini, Crematogastrini, Dacetini, Formicoxenini, Lenomyrmecini, Liomyrmecini, Melissotarsini, Meranoplini, Metaponini, Myrmecini, Myrmecariini, Myrmecini, Paratopulini, Phalacromyrmecini, Pheidolini, Solenopsidini, Stegomyrmecini, Stenammini, Tetramorini.

Genera (extinct) *incertae sedis* in Myrmicinae: **Attopsis*, **Cephalomyrmex*, **Electromyrmex*, **Eocenidris*, **Eoformica*, **Eomyrmex*, **Miosolenopsis*, **Zhangidris*.

Collective group name in Myrmicinae: **Myrmicites*.

Subfamily references, world

Mayr, 1865: 17 (diagnosis); Mayr, 1867a: 91 (diagnosis); Forel, 1878: 367 (diagnosis); Handlirsch, 1907: 872 (*fossil taxa catalogue); Dalla Torre, 1893: 53 (catalogue); Emery, 1895e: 768 (diagnosis); Emery, 1896b: 179 (genera key); Wheeler, W.M. 1910d: 138 (diagnosis); Emery, 1912b: 101 (phylogeny); Emery, 1914a: 34 (phylogeny, tribe key); Arnold, 1916: 164 (diagnosis); Forel, 1917: 240 (synoptic classification); Forel, 1921: 139 (diagnosis); Emery, 1921b: 3 (diagnosis, tribes & genera key, catalogue); Wheeler, W.M. 1922a: 124, 655 (diagnosis, tribes key); Brown & Nutting, 1950: 126 (venation, phylogeny); Brown, 1954b: 28 (phylogeny); Eisner, 1957: 477 (proventriculus morphology); Bernard, 1967: 93 (diagnosis); Gotwald, 1969: 99 (mouthparts morphology); Wheeler, G.C. & Wheeler, J. 1972: 40 (diagnosis); Brown, 1973b: 166 (genera, distribution); Wheeler, G.C. & Wheeler, J. 1976: 52 (larvae, review & synthesis); Kugler, C. 1978a: 413 (sting structure); Kugler, C. 1978b: 267 (pygidial glands); Kugler, C. 1979b: 117 (sting, evolution); Snelling, 1981: 393 (synoptic classification); Caetano, F.H. 1984: 257 (digestive tract, morphology); Wheeler, G.C. & Wheeler, J. 1985: 257 (synoptic classification); Billen, 1986: 167 (Dufour's gland); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 9 onward (synoptic classification, genera keys); Baroni Urbani, Bolton & Ward, 1992: 317 (phylogeny); Bolton, 1994: 75 (diagnosis, synoptic classification, genera keys); Bolton, 1995a: 1040 (census); Bolton, 1995b: 13 (catalogue); Hashimoto, 1996: 354 (phylogenetic position); Baroni Urbani, 2000: 480 (phylogeny).

Regional and national faunas with keys

Mayr, 1855: 391 (Austria); Mayr, 1861: 29 (Europe); Mayr, 1868b: 79 (*Baltic Amber); André, 1874: 171 (Europe); Forel, 1874: 29 (Switzerland); Saunders, E. 1880: 213 (Britain); André, 1882c: 256 (Europe & Algeria); Cresson, 1887: 98 (U.S.A. genera); Provancher, 1887: 243 (Canada); Nasonov, 1889: 54 (Russia); Forel, 1891b: 11 (Madagascar genera); Lameere, 1892: 66 (Belgium); Forel, 1902b: 520 (India & Sri Lanka).

genera); Bingham, 1903: 105 (India, Sri Lanka & Burma); Ruzsky, 1905: 103 (Russian Empire); Wasmann, 1906: 13 (Luxemburg); Bondroit, 1910: 490 (Belgium); Wheeler, W.M. 1910d: 558 (North America genera); Stitz, 1914: 55 (Central Europe); Gallardo, 1915: 32 (Argentina genera); Forel, 1915c: 8 (Switzerland); Donisthorpe, 1915: 74 (Britain); Arnold, 1916: 166, 170 (South Africa tribes, genera); Emery, 1916b: 112 (Italy); Wheeler, W.M. 1916g: 581 (U.S.A., Connecticut); Bondroit, 1918: 90 (France & Belgium); Kutter, 1920: 144 (Switzerland); Soudek, 1922: 20 (Czechoslovakia); Stärcke, 1926: 84 (Netherlands); Karavaiev, 1927a: 256 (Ukraine); Donisthorpe, 1927: 77 (Britain); Menozzi & Russo, 1930: 170 (Dominican Republic); Gallardo, 1932b: 91 (Argentina, tribes); Arnol'di, 1933b: 596 (Russia); Menozzi, 1933a: 88 (Israel genera); Karavaiev, 1934: 60 (Ukraine); Smith, M.R. 1937: 829 (Puerto Rico); Stitz, 1939: 63 (Germany); Kratochvíl, 1941: 71 (Central Europe); Novák & Sadil, 1941: 71 (Central Europe); Cole, 1942: 360 (U.S.A., Utah); Smith, M.R. 1943b: 291 (U.S.A., males); Holgersen, 1943: 166 (Norway); Holgersen, 1944: 198 (Norway); Buren, 1944: 281 (U.S.A., Iowa); Smith, M.R. 1947c: 543 (U.S.A. genera); Boven, 1947: 170 (Belgium); Creighton, 1950a: 83 (North America); Kusnezov, 1956: 15 (Argentina); Brown, 1958c: 25 (New Zealand); Boven, 1959: 7 (Netherlands); Gregg, 1963: 288 (U.S.A., Colorado); Wheeler, G.C. & Wheeler, J. 1963: 92 (U.S.A., North Dakota); Collingwood, 1964: 94 (Britain); Bernard, 1967: 95 (Western Europe); Wilson & Taylor, 1967: 13 (Polynesia); Boven, 1970: 9 (Netherlands); Kempf, 1972a: 263 (Neotropical, synoptic classification); Bolton, 1973a: 325 (West Africa genera); Bolton & Collingwood, 1975: 3 (Britain); Snelling & Hunt, 1976: 70 (Chile); Tarbinsky, 1976: 19 (Kirgizstan); Boven, 1977: 69 (Belgium); Kutter, 1977b: 31 (Switzerland); Arnol'di & Dlussky, 1978: 524 (former European U.S.S.R.); Collingwood, 1978: 75 (Iberian Peninsula); Collingwood, 1979: 36 (Fennoscandia & Denmark); Greenslade, 1979: 20 (South Australia genera); Schembri & Collingwood, 1981: 423 (Malta); Allred, 1982: 438 (U.S.A., Utah); Baroni Urbani, 1984: 76 (Neotropical genera); Verhaeghe, Deligne, *et al.*, 1984: 112 (Belgium genera); Gösswald, 1985: 289 (Germany); Collingwood, 1985: 245 (Saudi Arabia); Wheeler, G.C. & Wheeler, J. 1986b: 20 (U.S.A., Nevada); Nilsson & Douwes, 1987: 57 (Norway); Agosti & Collingwood, 1987: 265 (Balkans); Dlussky, Soyunov & Zabelin, 1990: 181 (Turkmenistan); Kupyanskaya, 1990: 89 (Far Eastern Russia); Ogata, 1991b: 61 (Japan genera); Morisita, Kubota, Onoyama, *et al.*, 1992: 1 (Japan); Atanasov & Dlussky, 1992: 51 (Bulgaria); Latke, in Jaffe, 1993: 153 (Neotropical genera); Arakelian, 1994: 15 (Armenia); Wu, J. & Wang, 1995: 57 (China genera); Kupyanskaya, 1995: 327 (Far Eastern Russia); Collingwood & Agosti, 1996: 308 (Saudi Arabia); Seifert, 1996: 108 (Central Europe); Skinner & Allen, 1996: 43 (Britain); Collingwood & Prince, 1998: 10 (Portugal); Shattuck, 1999: 39, 122 (Australia genera, synopsis); Andersen, 2000: 37 (northern Australia genera); Zhou, 2001: 69 (China, Guangxi); Czechowski, Radchenko & Czechowska, 2002: 135 (Poland); Aktaş & Radchenko, 2002: 55 (Turkey genera); Yoshimura & Onoyama, 2002: 424 (Japan genera, males key); Imai, Kihara, Kondoh *et al.* 2003: 85 (Japan).

Tribe BASICEROTINI

Basicerotini Brown, 1949f: 86. Type-genus: *Basiceros*.

Taxonomic history

Basicerotini as junior synonym of Dacetini: Baroni Urbani & De Andrade, 1994: 10.

Basicerotini as tribe of Myrmicinae: Brown, 1949f: 86; Brown & Kempf, 1960: 162; Taylor, 1968a: 333; Wheeler, G.C. & Wheeler, J. 1976: 60; Kugler, C. 1978a: 438; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Taylor, 1990b: 397; Brandão, 1991: 391; Bolton, 1994: 104; Bolton, 1995b: 9; Bolton, 1998: 70. [*Taxonomy*, p. 53.]

Genera: *Basiceros*, *Creightonidris*, *Eurhopalothrix*, *Octostruma*, *Protalaridris*, *Rhopalothrix*, *Talaridris*.

Tribe references

Brown, 1949f: 86 (diagnosis, genera); Brown & Kempf, 1960: 161, 243 (diagnosis, genera revision, key); Taylor, 1968a: 334 (Indo-Australian species key); Wheeler, G.C. & Wheeler, J. 1976: 60 (larvae, review & synthesis); Kugler, C. 1978a: 438 (sting structure); Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Taylor, 1990b: 401 (Old World species key); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 391 (Neotropical fauna, synoptic classification); Baroni Urbani & De Andrade, 1994: 9 (review of tribe, classification & phylogeny); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1040 (census); Bolton, 1995b: 9 (catalogue); Bolton, 1998: 70 (comparative morphology, monophyly, relationships).

Genera of Basicerotini

Genus *BASICEROS*

Basiceros Schulz, W.A. 1906: 156.

Taxonomic history

[Replacement name for *Ceratobasis* Smith, F. 1860c: 78; junior homonym of *Ceratobasis* Lacordaire, 1848: 362 (Coleoptera).]

Basiceros in Myrmicinae, Dacetini: Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666; Emery, 1924: 327; Donisthorpe, 1943f: 627; Brown, 1948b: 102; Baroni Urbani & De Andrade, 1994: 30.

Basiceros in Myrmicinae, Basicerotini: Brown, 1949f: 87; Brown & Kempf, 1960: 171; Bolton, 1994: 105; Bolton, 1998: 67.

Homonym replaced by *BASICEROS*

Ceratobasis Smith, F. 1860c: 78. Type-species: *Meranoplus singularis*, by monotypy.

Taxonomic history

[Junior homonym of *Ceratobasis* Lacordaire, 1848: 362 (Coleoptera).]

Ceratobasis in Myrmicidae, Cryptoceridae: Emery, 1877a: 81.

Ceratobasis in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Dalla Torre, 1893: 148.

Ceratobasis in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Ceratobasis in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Forel, 1895a: 136; Emery, 1895e: 770; Wheeler, W.M. 1910d: 141 (anachronism).

Junior synonym of *BASICEROS*

Aspididris Weber, 1950b: 3. Type-species: *Aspididris militaris*, by monotypy.

Taxonomic history

Aspididris in Myrmicinae, Basicerotini: Brown & Kempf, 1960: 179.

Aspididris as genus: Weber, 1950b: 3; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 80 (anachronism).

Aspididris as junior synonym of *Basiceros*: Brown, 1974c: 132; Bolton, 1994: 105.

Genus references

Roger, 1863b: 40 (catalogue); Mayr, 1863: 403 (catalogue); Mayr, 1865: 26 (diagnosis); Emery, 1924: 327 (diagnosis, catalogue); Brown & Kempf, 1960: 171, 243 (diagnosis, all species revision, key); Brown & Kempf, 1960: 179, 244 (review of *Aspididris*, key); Kempf, 1972a: 26, 36 (*Aspididris*, *Basiceros* catalogues); Brown, 1974c: 132 (diagnosis, revised key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue).

Genus CREIGHTONIDRIS

Creightonidris Brown, 1949f: 89. Type-species: *Creightonidris scambognatha*, by original designation.

Taxonomic history

Creightonidris in Myrmicinae, Basicerotini: Brown, 1949f: 89; all subsequent authors.

Genus references

Brown & Kempf, 1960: 178 (review of genus); Kempf, 1972a: 80 (catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 146 (catalogue).

Genus EURHOPALOTHRIX

Eurhopalothrix Brown & Kempf, 1961: 44. Type-species: *Rhopalothrix bolau*i, by original designation.

Taxonomic history

[*Eurhopalothrix* Brown & Kempf, 1960: 202; unavailable name, proposed without designation of type-species.]

Eurhopalothrix in Myrmicinae, Basicerotini: Brown & Kempf, 1961: 44; all subsequent authors except the entry below; Bolton, 1994: 105; Bolton, 1998: 67.

Eurhopalothrix in Myrmicinae, Dacetini: Baroni Urbani & De Andrade, 1994: 31.

Genus references

Brown & Kempf, 1960: 202, 245 (diagnosis, all species revision, key); Snelling, 1968b: 3 (supplement to Brown & Kempf, 1960 key); Taylor, 1968a: 334 (Indo-Australian species key); Taylor, 1970a: 51 (supplement to Taylor, 1968a key); Kempf, 1972a: 107 (Neotropical catalogue); Smith, D.R. 1979: 1409 (North America catalogue); Taylor & Brown, D.R. 1985: 64 (Australia catalogue); Taylor, 1987a: 26 (Australia, New Caledonia checklist); Taylor, 1990b: 401 (Old World species key); Brandão, 1991: 343 (Neotropical catalogue); Bolton, 1995a: 1049 (census); Bolton, 1995b: 189 (catalogue); Shattuck, 1999: 135 (Australia synopsis).

Genus OCTOSTRUMA

Octostruma Forel, 1912b: 196 [as subgenus of *Rhopalothrix*]. Type-species: *Rhopalothrix simoni* (junior synonym of *Octostruma iheringi*), by subsequent designation of Wheeler, W.M. 1913a: 82.

Taxonomic history

Octostruma in Myrmicinae, Dacetini: Forel, 1917: 246; Wheeler, W.M. 1922a: 667; Emery, 1924: 328; Donisthorpe, 1943c: 676; Brown, 1948b: 102.

Octostruma in Myrmicinae, Dacetini: Baroni Urbani & De Andrade, 1994: 31.

Octostruma in Myrmicinae, Basicerotini: Brown, 1949f: 92; all subsequent authors to the entry above; Bolton, 1994: 105; Bolton, 1998: 67.

Octostruma as subgenus of *Rhopalothrix*: Forel, 1917: 246; Wheeler, W.M. 1922a: 667; Emery, 1924: 328.

Octostruma as genus: Brown, 1948b: 102; Brown, 1949f: 92; Brown & Kempf, 1960: 181; all subsequent authors.

Genus references

Emery, 1924: 328 (review, catalogue); Brown, 1949f: 92 (species, checklist); Brown & Kempf, 1960: 181, 244 (diagnosis, all species revision, key); Kempf, 1972a: 169 (catalogue); Brandão, 1991: 362 (catalogue); Bolton, 1995a: 1051 (census); Bolton, 1995b: 293 (catalogue); Palacio, 1997: 416 (Colombia species key).

Genus PROTALARIDRIS

Protalaridris Brown, 1980a: 36. Type-species: *Protalaridris armata*, by original designation.

Taxonomic history

Protalaridris in Myrmicinae, Basicerotini: Brown, 1980a: 36; all subsequent authors except the entry below; Bolton, 1994: 105; Bolton, 1995b: 369; Bolton, 1998: 67.

Protalaridris in Myrmicinae, Dacetini: Baroni Urbani & De Andrade, 1994: 32.

Genus *RHOPALOTHRIX*

Rhopalothrix Mayr, 1870a: 415. Type-species: *Rhopalothrix ciliata*, by subsequent designation of Wheeler, W.M. 1911b: 172.

Taxonomic history

Rhopalothrix in Myrmicidae, Cryptoceridae: Emery, 1877a: 81.

Rhopalothrix in Myrmicinae: Dalla Torre, 1893: 145.

Rhopalothrix in Cryptoceridae, Dacetini: Ashmead, 1905b: 384.

Rhopalothrix in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Forel, 1895a: 133; Emery, 1895e: 770; Forel, 1899: 41; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666; Emery, 1924: 328; Donisthorpe, 1943d: 724; Brown, 1948b: 102; Chapman & Capco, 1951: 105; Baroni Urbani & De Andrade, 1994: 32.

Rhopalothrix in Myrmicinae, Basicerotini: Brown, 1949f: 92; Brown & Kempf, 1960: 230; Taylor, 1990b: 397; Bolton, 1994: 105; Bolton, 1998: 67.

Junior synonyms of *RHOPALOTHRIX*

Heptastruma Weber, 1934: 54. Type-species: *Heptastruma wheeleri* (junior secondary homonym in *Rhopalothrix*, replaced by *Rhopalothrix weberi*), by original designation.

Taxonomic history

Heptastruma in Myrmicinae, Dacetini: Weber, 1934: 54; Donisthorpe, 1943c: 650; Brown, 1948b: 102.

Heptastruma in Myrmicinae, Basicerotini: Brown, 1949f: 94.

Heptastruma as junior synonym of *Rhopalothrix*: Brown & Kempf, 1960: 230.

Acanthidris Weber, 1941: 188. Type-species: *Acanthidris isthmicus*, by original designation.

Taxonomic history

Acanthidris in Myrmicinae, Dacetini: Weber, 1941: 183 [Dacetonini]; Donisthorpe, 1943c: 618; Brown, 1948b: 102.

Acanthidris in Myrmicinae, Basicerotini: Brown, 1949f: 94.

Acanthidris as junior synonym of *Rhopalothrix*: Brown & Kempf, 1960: 230.

Genus references

Dalla Torre, 1893: 145 (catalogue); Emery, 1894a: 216 (Neotropical species key); Mann, 1919: 360 (Papuan species key); Emery, 1924: 328 (diagnosis, catalogue); Chapman & Capco, 1951: 105 (Asia checklist); Brown, 1949f: 93 (checklist); Brown & Kempf, 1960: 230, 247 (diagnosis, all species revision, key); Taylor, 1968a: 334 (Indo-Australian species key); Kempf, 1972a: 226 (Neotropical catalogue); Taylor & Brown, D.R. 1985: 86 (Australia catalogue); Taylor, 1987a: 66 (Australia checklist); Taylor, 1990b: 401 (Old World species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 377 (catalogue); Shattuck, 1999: 162 (Australia synopsis).

Genus *TALARIDRIS*

Talaridris Weber, 1941: 184. Type-species: *Talaridris mandibularis*, by original designation.

Taxonomic history

Talaridris in Myrmicinae, Dacetini: Weber, 1941: 183 [Dacetonini]; Donisthorpe, 1943d: 730; Brown, 1948b: 102; Baroni Urbani & De Andrade, 1994: 32.

Talaridris in Myrmicinae, Basicerotini: Brown, 1949f: 94; Brown & Kempf, 1960: 241; Kempf, 1972a: 246; Bolton, 1994: 105; Bolton, 1995b: 399; Bolton, 1998: 67.

Talaridris as junior synonym of *Rhopalothrix*: Brown, 1973b: 185 [provisional]; Baroni Urbani & De Andrade, 1994: 32.

Talaridris as genus: Bolton, 1994: 105; Bolton, 1998: 67.

Genus references

Brown & Kempf, 1960: 241 (review of genus).

Tribe DACETINI

Dacetonini Forel, 1892c: 344. Type-genus: *Daceton*.

Taxonomic history

Dacetini as subfamily of Cryptoceridae: Ashmead, 1905b: 383 [Dacetonini].

Dacetini as tribe of Myrmicinae: Forel, 1892c: 344 [Dacetonini genus group]; Forel, 1893a: 164 [Dacetonii]; Forel, 1895a: 133 [Dacetonii]; Emery, 1895e: 770 [Daceti]; Forel, 1899: 41 [Daceti]; Wheeler, W.M. 1910d: 141 [Dacetonii]; Emery, 1914a: 39; Wheeler, W.M. 1915d: 491 [Dacetonii (in text)]; Arnold, 1917: 372; Forel, 1917: 246; Wheeler, W.M. 1922a: 655, 666 [Dacetonini]; Emery, 1924: 312; Brown, 1948b: 125; subsequent authors to Bolton, 1994: 105 [Dacetonini]; Bolton, 1995b: 10; Bolton, 1999: 1639 [Dacetonini]; Bolton, 2000: 12. [*Taxonomy*, p. 54.]

Junior synonyms of DACETINI

Dacetiti Brown, 1952c: 10 (footnote). Type-genus: *Daceton*.

Taxonomic history

Dacetiti as subtribe of Dacetini: Brown, 1952c: 10; Brown, 1954a: 465 (definition); Brown & Wilson, 1959b: 281.

Dacetiti as junior synonym of Dacetini: Baroni Urbani & De Andrade, 1994: 9.

Epopostrumiti Brown, 1952c: 10 (footnote). Type-genus: *Epopostruma*.

Taxonomic history

Epopostrumiti as subtribe of *Dacetini*: Brown, 1952c: 10; Brown, 1954a: 465 (definition); Brown & Wilson, 1959b: 281.

Epopostrumiti as junior synonym of *Dacetini*: Baroni Urbani & De Andrade, 1994: 9.

Orectognathiti Brown, 1952c: 10 (footnote). Type-genus: *Orectognathus*.

Taxonomic history

Orectognathiti as subtribe of *Dacetini*: Brown, 1952c: 10; Brown, 1953f: 85 (definition); Brown, 1954a: 465; Brown & Wilson, 1959b: 281.

Orectognathiti as junior synonym of *Dacetini*: Baroni Urbani & De Andrade, 1994: 9.

[*Arestognathiti* Brown, 1952c: 10, incorrect subsequent spelling.]

Strumigeniti Brown, 1952c: 10 (footnote). Type-genus: *Strumigenys*.

Taxonomic history

Strumigeniti as subtribe of *Dacetini*: Brown, 1952c: 10; Brown, 1954a: 465; Brown & Wilson, 1959b: 281.

Strumigeniti as junior synonym of *Dacetini*: Baroni Urbani & De Andrade, 1994: 9.

Genera: *Acanthognathus*, *Colobostruma*, *Daceton*, *Epopostruma*, *Mesostruma*, *Microdaceton*, *Orectognathus*, *Pyramica*, *Strumigenys*.

Tribe references

Mayr, 1887: 567 (Neotropical genera key); Emery, 1895e: 770 (diagnosis); Wheeler, W.M. 1910d: 141 (diagnosis); Emery, 1912b: 101 (phylogeny); Emery, 1914a: 39, 42 (diagnosis (in key), synoptic classification); Forel, 1917: 246 (synoptic classification); Wheeler, W.M. 1922a: 666, 917, 1034 (genera key, Afrotropical, Malagasy catalogues); Emery, 1924: 312 (diagnosis, genera key, catalogue); Brown, 1948b: 125 (genera revision, key); Brown, 1949d: 1 (Japan, China, Taiwan fauna); Brown, 1953c: 2 (diagnosis, subtribal grouping); Brown & Wilson, 1959b: 278 (evolution, phylogeny); Wheeler, G.C. & Wheeler, J. 1976: 60 (larvae, review & synthesis); Kugler, C. 1978a: 436 (sting structure); Bolton, 1983: 267 (Afrotropical fauna), Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Terayama & Kubota, 1989: 778 (Taiwan fauna); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 391 (Neotropical fauna, synoptic classification); Arakelian & Dlussky, 1991: 149 (former U.S.S.R. fauna); Dlussky, 1993: 53 (Fiji, Tonga, Samoa fauna); Bolton, 1994: 105 (synoptic classification); Baroni Urbani & De Andrade, 1994: 9 (review of tribe, classification, phylogeny); Bolton, 1995a: 1040 (census); Bolton, 1995b: 10 (catalogue); Deyrup, 1997: 2 (Bahamas fauna); Bolton, 1998: 71 (comparative morphology, monophyly, relationships); Bolton, 1999: 1639 (diagnosis, genera revision, morphology, phylogeny, classification, key); Bolton, 2000: 11 (diagnosis, genera key); Lyu, Choi & Cho, 2001: 232 (Korea fauna).

Genera of *Dacetini***Genus *ACANTHOGNATHUS***

Acanthognathus Mayr, 1887: 567 (diagnosis in key), 578. Type-species: *Acanthognathus ocellatus*, by monotypy.

Taxonomic history

Acanthognathus in *Myrmicinae*: Dalla Torre, 1893: 148.

Acanthognathus in *Cryptoceridae*, *Dacetini*: Ashmead, 1905b: 384.

Acanthognathus in *Myrmicinae*, *Dacetini*: Forel, 1892c: 344; Forel, 1893a: 164; Forel, 1895a: 136; Emery, 1895e: 770; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666; Emery, 1924: 317; Brown, 1948b: 102; all subsequent authors.

Genus references

Dalla Torre, 1893: 148 (catalogue); Emery, 1924: 317 (diagnosis, catalogue); Smith, M.R. 1944c: 150 (all species key); Brown & Kempf, 1969: 89 (diagnosis, all species revision, key); Kempf, 1972a: 9 (catalogue); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 53 (catalogue); Gronenberg, Brandão, Dietz & Just, 1998: 227 (mandible mechanism); Bolton, 1999: 1650 (diagnosis, review of genus, phylogeny); Bolton, 2000: 15 (diagnosis, species synopsis).

Genus *COLOBOSTRUMA*

Colobostruma Wheeler, W.M. 1927b: 32 [as subgenus of *Epopostruma*]. Type-species: *Epopostruma (Colobostruma) leae*, by monotypy.

Taxonomic history

Colobostruma in *Myrmicinae*, *Dacetini*: Brown, 1948b: 118.

Colobostruma as genus: Brown, 1948b: 118; all subsequent authors.

Junior synonyms of *COLOBOSTRUMA*

Alistruma Brown, 1948b: 117. Type-species: *Epopostruma foliacea*, by original designation.

Taxonomic history

Alistruma in *Myrmicinae*, *Dacetini*: Brown, 1948b: 117.

Alistruma as junior synonym of *Colobostruma*: Brown, 1959b: 1; Brown & Wilson, 1959b: 281; Bolton, 1999: 1679; Shattuck, 2000: 31.

Clarkistruma Brown, 1948b: 124. Type-species: *Epopostruma alinodis*, by original designation.

Taxonomic history

Clarkistruma in *Myrmicinae*, *Dacetini*: Brown, 1948b: 124.

Clarkistruma as junior synonym of *Colobostruma*: Brown, 1959b: 1; Brown & Wilson, 1959b: 281; Bolton, 1999: 1679; Shattuck, 2000: 31.

Genus references

Taylor & Brown, D.R. 1985: 59 (Australia catalogue); Taylor, 1987a: 22 (Australia checklist); Bolton, 1995a: 1048 (census); Bolton, 1995b: 146 (catalogue); Shattuck, 1999: 130 (Australia synopsis); Bolton, 1999: 1678, 1679 (morphology, diagnosis, review of genus, phylogeny); Shattuck, 2000: 31 (diagnosis, all species revision, key).

Genus DACEON

Daceton Perty, 1833: 136. Type-species: *Formica armigera*, by monotypy.

Taxonomic history

Daceton in Poneridae, Myrmicidae: Smith, F. 1858b: 160.

Daceton in Myrmicidae, Cryptoceridae: Smith, F. 1853: 226; Emery, 1877a: 81.

Daceton in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Daceton in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Dalla Torre, 1893: 149.

Daceton in Myrmicinae, Dacetini: Forel, 1893a: 164; Forel, 1892c: 344; Forel, 1895a: 136; Emery, 1895e: 770; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666; Emery, 1924: 316; Donisthorpe, 1943c: 637; Brown, 1948b: 102; all subsequent authors.

Junior synonym of DACEON

Dacetum Agassiz, 1846: 332, unjustified emendation of *Daceton*.

Taxonomic history

Dacetum as junior synonym of *Daceton*: Brown, 1973b: 179.

Genus references

Roger, 1863b: 40 (catalogue); Mayr, 1863: 406 (catalogue); Mayr, 1865: 26 (diagnosis); Dalla Torre, 1893: 149 (catalogue); Emery, 1924: 316 (diagnosis, catalogue); Kempf, 1972a: 94 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 168 (catalogue); Gronenberg, 1996: 2021 (mandible morphology); Bolton, 1999: 1653 (diagnosis, review of genus, phylogeny); Bolton, 2000: 17 (diagnosis, species synopsis).

Genus EPOPOSTRUMA

Epopostruma Forel, 1895c: 422 [as subgenus of *Strumigenys*]. Type-species: *Strumigenys (Epopostruma) quadrispinosa*, by subsequent designation of Wheeler, W.M. 1911b: 163.

Taxonomic history

Epopostruma in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Epopostruma in Myrmicinae, Dacetini: Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 667; Emery, 1924: 329; Donisthorpe, 1943c: 644; Brown, 1948b: 119; all subsequent authors.

Epopostruma as subgenus of *Strumigenys*: Forel, 1895c: 422.

Epopostruma as genus: Emery, 1897b: 573; all subsequent authors.

Junior synonym of EPOPOSTRUMA

Hexadaceton Brown, 1948b: 120. Type-species: *Hexadaceton frosti*, by original designation.

Taxonomic history

Hexadaceton in Myrmicinae, Dacetini: Brown, 1949e: 120.

Hexadaceton as junior synonym of *Epopostruma*: Brown, 1973b: 181 [provisional]; Taylor & Brown, D.R. 1985: 63; Bolton, 1999: 1681; Shattuck, 2000: 53.

Genus references

Emery, 1924: 329 (diagnosis, catalogue); Taylor & Brown, D.R. 1985: 63 (Australia catalogue); Taylor, 1987a: 26 (Australia checklist); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 188 (catalogue); Shattuck, 1999: 134 (Australia synopsis); Bolton, 1999: 1678, 1681 (morphology, diagnosis, review of genus, phylogeny); Shattuck, 2000: 53 (diagnosis, all species revision, key).

Genus MESOSTRUMA

Mesostruma Brown, 1948b: 118. Type-species: *Strumigenys (Epopostruma) turneri*, by original designation.

Taxonomic history

Mesostruma in Myrmicinae, Dacetini: Brown, 1948b: 118.

Mesostruma as junior synonym of *Colobostruma*: Baroni Urbani & De Andrade, 1994: 15.

Mesostruma as genus: Brown, 1948b: 118; Brown, 1952c: 9; Bolton, 1995b: 35; Taylor, 1973: 25; Bolton, 1999: 1680; Shattuck, 2000: 47.

Genus references

Brown, 1952c: 9 (diagnosis, all species key); Taylor, 1973: 27 (diagnosis, all species revision, key); Taylor & Brown, D.R. 1985: 69 (Australia catalogue); Taylor, 1987a: 40 (Australia checklist); Bolton, 1995a: 1050 (census); Bolton, 1995b: 252 (catalogue); Shattuck, 1999: 143 (Australia synopsis); Bolton, 1999: 1680 (morphology, diagnosis, review of genus, phylogeny); Shattuck, 2000: 47 (diagnosis, all species revision, key).

Genus MICRODACETON

Microdaceton Santschi, 1913d: 478. Type-species: *Microdaceton exornatum*, by monotypy.

Taxonomic history

[*Microdaceton* also described as new by Santschi, 1914c: 33.]

Microdaceton in Myrmicinae, Dacetini: Emery, 1914a: 42; Forel, 1917: 246; Arnold, 1917: 383; Wheeler, W.M. 1922a: 667; Emery, 1924: 317; Brown, 1948b: 102; all subsequent authors.

Genus references

Arnold, 1917: 383 (diagnosis); Wheeler, W.M. 1922a: 917 (catalogue); Emery, 1924: 317 (diagnosis, catalogue); Bolton, 1983: 401 (diagnosis, all species revision, key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 258 (catalogue); Bolton, 1999: 1675 (morphology, diagnosis, review of genus, phylogeny); Bolton, 2000: 26 (diagnosis, all species revision, key).

Genus *ORECTOGNATHUS*

Orectognathus Smith, F. 1853: 227. Type-species: *Orectognathus antennatus*, by monotypy.

Taxonomic history

Orectognathus in Myrmicidae, Cryptoceridae: Smith, F. 1853: 227; Emery, 1877a: 81.

Orectognathus in Poneridae, Myrmicidae: Smith, F. 1858b: 161.

Orectognathus in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Dalla Torre, 1893: 148.

Orectognathus in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Orectognathus in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Emery, 1895e: 770;

Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666;

Emery, 1924: 318; Brown, 1948b: 102; all subsequent authors.

Junior synonym of *ORECTOGNATHUS*

Arnoldidris Brown, 1950b 143. Type-species: *Orectognathus chyzeri*, by original designation.

Taxonomic history

Arnoldidris in Myrmicinae, Dacetini: Brown, 1950b 143; Brown, 1953f: 87.

Arnoldidris as junior synonym of *Orectognathus*: Brown, 1973b: 178 [provisional]; Taylor, 1977: 581;

Bolton, 1999: 1655; Bolton, 2000: 19.

Genus references

Roger, 1863b: 40 (catalogue); Mayr, 1863: 439 (catalogue); Mayr, 1865: 26 (diagnosis); Dalla Torre, 1893:

148 (catalogue); Emery, 1924: 318 (diagnosis, catalogue); Chapman & Capco, 1951: 105 (Asia checklist);

Brown, 1953f: 87 (diagnosis, all species key); Brown, 1958a: 17, 22, 27 (supplement to preceding,

Arnoldidris species key, *Orectognathus* species key); Brown, 1958c: 36 (New Zealand species); Taylor,

1977: 585 (all species key); Taylor, 1978b: 9 (all species key); Taylor, 1980a: 779 (species notes,

supplement to 1977 key); Taylor & Brown, D.R. 1985: 72 (Australia catalogue); Taylor, 1987a: 51

(Australia, New Caledonia & New Zealand checklists); Bolton, 1994: 105 (synoptic classification); Bolton,

1995a: 1051 (census); Bolton, 1995b: 301 (catalogue); Shattuck, 1999: 150 (Australia synopsis); Bolton,

1999: 1655 (diagnosis, review of genus, phylogeny); Bolton, 2000: 19 (diagnosis, species synopsis).

Genus *PYRAMICA*

Pyramica Roger, 1862a: 251. Type-species: *Pyramica gundlachi*, by monotypy.

Taxonomic history

Pyramica in Myrmicinae, Dacetini: Emery, 1924: 320; all subsequent authors.

Pyramica as junior synonym of *Strumigenys*: Roger, 1863b: 40; Emery & Forel, 1879: 464; Dalla Torre,

1893: 145; Bingham, 1903: 147; Emery, 1924: 320; Donisthorpe, 1943d: 723; Brown & Wilson,

1959b: 281; Brown, 1960b: 37; Kempf, 1972a: 242; Bolton, 1983: 358; Bolton, 1994: 105.

Pyramica as subgenus of *Strumigenys*: Brown, 1948b: 110.

Pyramica as genus: Mayr, 1863: 453; Bolton, 1999: 1667; Bolton, 2000: 90.

Junior synonyms of *PYRAMICA*

Epitritus Emery, 1869a: 136. Type-species: *Epitritus argiolus*, by monotypy.

Taxonomic history

Epitritus in Myrmicidae, Cryptoceridae: Emery, 1877a: 81.

Epitritus in Myrmicinae: Emery & Forel, 1879: 465 [Myrmicidae]; Dalla Torre, 1893: 148.

Epitritus in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Epitritus in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Emery, 1895e: 770; Wheeler,

W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Arnold, 1917: 384; Wheeler, W.M. 1922a:

666; Emery, 1924: 326; Donisthorpe, 1943c: 643; Brown, 1948b: 122; Brown, 1949b: 44; all

subsequent authors.

Epitritus as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 12.

Epitritus as junior synonym of *Pyramica*: Bolton, 1999: 1667; Bolton, 2000: 90.

Trichoscapa Emery, 1869b: 24 [as subgenus of *Strumigenys*]. Type-species: *Strumigenys (Trichoscapa) membranifera*, by monotypy.

Taxonomic history

Trichoscapa in Myrmicinae: Emery & Forel, 1879: 464 [Myrmicidae]; Dalla Torre, 1893: 145.

Trichoscapa in Myrmicinae, Dacetini: Forel, 1917: 246; Wheeler, W.M. 1922a: 668; Emery, 1924: 323;

Donisthorpe, 1943d: 734; Brown, 1948b: 112; all subsequent authors.

Trichoscapa as subgenus of *Strumigenys*: Emery & Forel, 1879: 464; Forel, 1917: 246; Creighton, 1950a: 304.

Trichoscapa as junior synonym of *Strumigenys*: Dalla Torre, 1893: 145; Baroni Urbani & De Andrade, 1994: 13.

Trichoscapa as junior synonym of *Cephaloxys*: Wheeler, W.M. 1922a: 668; Emery, 1924: 323; Donisthorpe, 1943d: 734.

Trichoscapa as genus: Brown, 1948b: 112; Kempf, 1972a: 255; Bolton, 1983: 319.

Trichoscapa as junior synonym of *Pyramica*: Bolton, 1999: 1667; Bolton, 2000: 90.

Pentastruma Forel, 1912a: 50. Type-species: *Pentastruma sauteri*, by monotypy.

Taxonomic history

Pentastruma in Myrmicinae, Dacetini: Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 666; Emery, 1924: 326; Donisthorpe, 1943c: 682; Brown, 1948b: 102.

Pentastruma as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 15.

Pentastruma as junior synonym of *Pyramica*: Bolton, 1999: 1667; Bolton, 2000: 91.

Glamyromyrmex Wheeler, W.M. 1915d: 487. Type-species: *Glamyromyrmex beebei*, by monotypy.

Taxonomic history

Glamyromyrmex in Myrmicinae, Dacetini: Wheeler, W.M. 1915d: 491; Forel, 1917: 246; Wheeler, W.M. 1922a: 667; Emery, 1924: 326; Donisthorpe, 1943c: 647; Brown, 1948b: 116; all subsequent authors.

Glamyromyrmex as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 14.

Glamyromyrmex as junior synonym of *Pyramica*: Bolton, 1999: 1667; Bolton, 2000: 91.

Codiomyrmex Wheeler, W.M. 1916c: 326. Type-species: *Codiomyrmex thaxteri*, by monotypy.

Taxonomic history

Codiomyrmex in Myrmicinae, Dacetini: Wheeler, W.M. 1922a: 667; Emery, 1924: 325; Donisthorpe, 1943c: 633; Brown, 1948b: 114; all subsequent authors.

Codiomyrmex as subgenus of *Strumigenys*: Emery, 1924: 325; Donisthorpe, 1943c: 633.

Codiomyrmex as genus: Wheeler, W.M. 1916c: 326; Brown, 1948b: 114.

Codiomyrmex as junior synonym of *Glamyromyrmex*: Brown, 1973b: 179 [provisional].

Codiomyrmex as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 14.

Codiomyrmex as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Tingimyrman Mann, 1926: 104 [as subgenus of *Strumigenys*]. Type-species: *Strumigenys (Tingimyrman) mirabilis*, by monotypy.

Taxonomic history

Tingimyrman in Myrmicinae, Dacetini: Donisthorpe, 1943d: 732; Brown, 1948b: 111; all subsequent authors.

Tingimyrman as subgenus of *Strumigenys*: Mann, 1926: 104; Donisthorpe, 1943d: 732.

Tingimyrman as genus: Brown, 1948b: 111; Kempf, 1972a: 250.

Tingimyrman as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 15.

Tingimyrman as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Codioxenus Santschi, 1931: 278 [as subgenus of *Epitritus*]. Type-species: *Epitritus (Codioxenus) simulans*, by monotypy.

Taxonomic history

Codioxenus in Myrmicinae, Dacetini: Donisthorpe, 1943c: 633; Brown, 1948b: 123; all subsequent authors.

Codioxenus as genus: Brown, 1948b: 123.

Codioxenus as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 14.

Codioxenus as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Smithistruma Brown, 1948b: 104.

Taxonomic history

[Replacement name for *Cephaloxys* Smith, F. 1865: 76; junior homonym of *Cephaloxys* Signoret, 1847: 294 (Hemiptera). Type-species not *Strumigenys pulchella*, unjustified subsequent designation by Brown, 1948b: 104, repeated in Kempf, 1972a: 230, Bolton, 1983: 274 and Bolton, 1995b: 46.]

Smithistruma in Myrmicinae, Dacetini: Brown, 1948b: 104.

Smithistruma as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 14.

Smithistruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Homonym replaced by *Smithistruma*

Cephaloxys Smith, F. 1865: 76. Type-species: *Cephaloxys capitata*, by monotypy.

Taxonomic history

[*Cephaloxys* Smith, F. junior homonym of *Cephaloxys* Signoret, 1847: 294 (Hemiptera).]

Cephaloxys in Cryptoceridae: Smith, F. 1871: 335.

Cephaloxys in Myrmicinae, Dacetini: Wheeler, W.M. 1922a: 668.

Cephaloxys as junior synonym of *Strumigenys*: Dalla Torre, 1893: 15.

Cephaloxys as subgenus of *Strumigenys*: Wheeler, W.M. 1922a: 668; Emery, 1924: 323; Bernard, 1953: 254 (anachronism).

Weberistruma Brown, 1948b: 106 [as subgenus of *Smithistruma*]. Type-species: *Strumigenys (Cephaloxys) leptothrix*, by original designation.

Taxonomic history

Weberistruma in Myrmicinae, Dacetini: Brown, 1948b: 106.

Weberistruma as genus: Brown, 1949d: 7; Brown, 1953c: 24.

Weberistruma as junior synonym of *Smithistruma*: Brown, 1973a: 35.

Weberistruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Wessonistruma Brown, 1948b: 106 [as subgenus of *Smithistruma*]. Type-species: *Strumigenys pergandei*, by original designation.

Taxonomic history

Wessonistruma in Myrmicinae, Dacetini: Brown, 1948b: 106.

Wessonistruma junior synonym of *Smithistruma*: Brown, 1973a: 35.

Wessonistruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Serrastruma Brown, 1948b: 107 [as subgenus of *Smithistruma*]. Type-species: *Strumigenys simoni*, by original designation.

Taxonomic history

Serrastruma in Myrmicinae, Dacetini: Brown, 1948b: 107, and all subsequent authors.

Serrastruma as genus: Brown, 1949d: 6; Brown, 1952b: 70; Bolton, 1983: 335; Bolton, 1994: 105.

Serrastruma as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 14.

Serrastruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Neostruma Brown, 1948b: 111. Type-species: *Strumigenys crassicornis*, by original designation.

Taxonomic history

Neostruma in Myrmicinae, Dacetini: Brown, 1948b: 111; all subsequent authors.

Neostruma as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 12.

Neostruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Dorisidris Brown, 1948b: 116. Type-species: *Strumigenys (Codiomyrmex) nitens*, by original designation.

Taxonomic history

Dorisidris in Myrmicinae, Dacetini: Brown, 1948b: 116; all subsequent authors.

Dorisidris as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 14.

Dorisidris as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Miccostruma Brown, 1948b: 123. Type-species: *Epitritus mandibularis*, by original designation.

Taxonomic history

Miccostruma in Myrmicinae, Dacetini: Brown, 1948b: 123.

Miccostruma as junior synonym of *Smithistruma*: Bolton, 1983: 274.

Miccostruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Kyidris Brown, 1949d: 3. Type-species: *Kyidris mutica*, by original designation.

Taxonomic history

Kyidris in Myrmicinae, Dacetini: Brown, 1949d: 3.

Kyidris as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 15.

Kyidris as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Chelystruma Brown, 1950a: 33 [as subgenus of *Glamyromyrmex*]. Type-species: *Glamyromyrmex (Chelystruma) lilloana*, by monotypy.

Taxonomic history

Chelystruma in Myrmicinae, Dacetini: Brown, 1950a: 33; all subsequent authors.

Chelystruma as subgenus of *Glamyromyrmex*: Brown, 1953c: 16.

Chelystruma as genus: Kempf, 1959c: 338; Kempf, 1972a: 77.

Chelystruma as junior synonym of *Glamyromyrmex*: Brown, 1973b: 179 [provisional].

Chelystruma as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 14.

Chelystruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Polyhomoa Azuma, 1950: 36. Type-species: *Polyhomoa itoi* (junior synonym of *Kyidris mutica*), by monotypy.

Taxonomic history

Polyhomoa as junior synonym of *Kyidris*: Creighton, 1950b: 93; Brown & Yasumatsu, 1951: 93.

Polyhomoa as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Borgmeierita Brown, 1953c: 23. Type-species: *Codiomyrmex excisus*, by original designation.

Taxonomic history

Borgmeierita in Myrmicinae, Dacetini: Brown, 1953c: 23.

Borgmeierita as junior synonym of *Glamyromyrmex*: Brown, 1973a: 35.

Borgmeierita as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Platystruma Brown, 1953c: 112 [as subgenus of *Smithistruma*]. Type-species: *Strumigenys (Cephaloxys) depressiceps*, by original designation.

Taxonomic history

Platystruma in Myrmicinae, Dacetini: Brown, 1953c: 112; all subsequent authors.

Platystruma as junior synonym of *Smithistruma*: Brown, 1973a: 35.

Platystruma as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Gymnomyrmex Borgmeier, 1954a: 279. Type-species: *Gymnomyrmex splendens*, by original designation.

Taxonomic history

Gymnomyrmex in Myrmicinae, Dacetini: Borgmeier, 1954a: 279; all subsequent authors.

Gymnomyrmex as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 14.

Gymnomyrmex as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Dysedrognathus Taylor, 1968c: 132. Type-species: *Dysedrognathus extenuatus*, by original designation.

Taxonomic history

Dysedrognathus in Myrmicinae, Dacetini: Taylor, 1968c: 132.

Dysedrognathus as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 13.

Dysedrognathus as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Asketogenys Brown, 1972: 23. Type-species: *Asketogenys acubecca*, by original designation.

Taxonomic history

Asketogenys in Myrmicinae, Dacetini: Brown, 1972: 23.

Asketogenys as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 15.

Asketogenys as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Cladarogenys Brown, 1976b: 33. Type-species: *Cladarogenys lasia*, by original designation.

Taxonomic history

Cladarogenys in Myrmicinae, Dacetini: Brown, 1976b: 33.

Cladarogenys as junior synonym of *Strumigenys*: Baroni Urbani & de Andrade, 1994: 14.

Cladarogenys as junior synonym of *Pyramica*: Bolton, 1999: 1668; Bolton, 2000: 91.

Genus references

Mayr, 1863: 453 (catalogue); André, 1883b: 398, 402 (Europe & Algeria *Strumigenys* (*Trichoscapha*), *Epitritus* species); Dalla Torre, 1893: 145, 148 (*Strumigenys*, *Epitritus* catalogues); Emery, 1895b: 325 (North America species key); Wheeler, W.M. 1908a: 146 (New World species key); Santschi, 1913b: 257 (Afrotropical species key); Emery, 1916b: 205 (Italy species key); Arnold, 1917: 373 (South Africa species key); Wheeler, W.M. 1922a: 918, 920 (Afrotropical *Strumigenys* (*Cephaloxys*), *Epitritus* catalogues); Emery, 1924: 323, 325, 326 (*Strumigenys* (*Cephaloxys*), *Strumigenys* (*Codiomyrmex*), *Glamyromyrmex*, *Pentastruma*, *Epitritus* diagnoses, catalogues); Smith, M.R. 1931: 691 (North America *Strumigenys* (*Cephaloxys*) species key); Buren, 1944: 290 (U.S.A., Iowa species key); Brown, 1948b: 112 - 124 (minor genera reviews); Brown, 1949b: 43 (*Epitritus* diagnosis, review); Brown, 1949d: 8 (*Weberistruma* species, review); Brown, 1949d: 21 (Japan, China & Taiwan species key); Creighton, 1950a: 301 (North America *Strumigenys* (*Trichoscapha*) species key); Chapman & Capco, 1951: 104, 105, 106 (Asia *Epitritus*, *Kyidris*, *Pentastruma*, *Smithistruma*, *Strumigenys* (*Cephaloxys*) checklists); Brown, 1950a: 27 (*Glamyromyrmex* review); Brown, 1952b: 86 (*Serrastruma* diagnosis, species revision, key); Brown, 1953c: 20, 24 (*Codiomyrmex*, *Weberistruma* reviews); Brown, 1953c: 31, 46, 92, 114, 125, 130 (*Smithistruma* diagnosis, Nearctic, Neotropical, Malesian, Afrotropical, Palaearctic species revisions, keys); Wilson & Brown, 1956: 439 (*Kyidris* species review); Brown, 1959a: 1 (*Neostruma* species review); Kempf, 1959c: 339 (*Gymnomyrmex* species key); Brown, 1960b: 37 (*Strumigenys gundlachi* group revision, key); Kempf, 1960d: 447 (Neotropical *Glamyromyrmex* species key); Kempf, 1960d: 451 (*Gymnomyrmex* species key); Brown, 1962a: 79 (*Epitritus* species key); Brown, 1964a: 183 (supplement to 1953e *Smithistruma* revision); Bernard, 1967: 243, 245 (*Smithistruma*, *Epitritus* diagnoses); Kempf, 1972a: 37, 77, 98, 110, 116, 163, 230, 250, 255 (Neotropical *Borgeiieria*, *Chelystruma*, *Codiomyrmex*, *Codioxenus*, *Dorisidris*, *Glamyromyrmex*, *Gymnomyrmex*, *Neostruma*, *Smithistruma*, *Tingimyrme*, *Trichoscapha* catalogues); Bolton, 1972: 208 (*Epitritus* species key); Alayo, 1974: 19 (Cuba species key); Smith, D.R. 1979: 1405, 1408 (North America *Smithistruma*, *Trichoscapha* catalogues); Taylor, 1987a: 28 (Australia checklist); Brown & Boisvert, 1979: 201 (*Pentastruma* species review); Bolton, 1983: 274, 319, 320, 335, 353, 354 (Afrotropical *Smithistruma*, *Trichoscapha*, *Glamyromyrmex*, *Serrastruma*, *Cladarogenys*, *Epitritus* species revisions, keys); Taylor & Brown, D.R. 1985: 64 (Australia *Glamyromyrmex* catalogue); Perrault, 1986: 3 (*Gymnomyrmex* species key); Ward, 1988: 122 (Western Nearctic *Smithistruma* species key); Terayama & Kubota, 1989: 787 (Taiwan *Smithistruma* species key); Hölldobler & Wilson, 1990: 15 (synoptic classification); Brandão, 1991: 344, 346, 360, 378 (Neotropical catalogue); Arakelian & Dlussky, 1991: 150 (former U.S.S.R. species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 68 (Japan *Smithistruma* species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 76 (Japan *Epitritus* species key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1048 - 1053 (census); Bolton, 1995b: 75, 145, 146, 177, 183, 188, 207, 211, 219, 292, 316, 382, 383, 420, 421 (catalogue); Terayama, Lin & Wu, 1996: 328 (Taiwan *Smithistruma* species key); Ogata & Onoyama, 1998: 277 (Japan *Smithistruma* species key); Shattuck, 1999: 136, 170 (Australia *Glamyromyrmex*, *Trichoscapha* synopses); Bolton, 1999: 1657, 1667 (morphology, diagnosis, review of genus, phylogeny); Xu, 2000e: 297 (China *Epitritus* species key); Bolton, 2000: 95, 137, 272, 285, 342, 372, 472 (Nearctic, Neotropical, Afrotropical, West Palaearctic, Malagasy, Malesian-Oriental-East Palaearctic, Austral *Pyramica* species revisions, keys).

Genus STRUMIGENYS

Strumigenys Smith, F. 1860c: 72. Type-species: *Strumigenys mandibularis*, by monotypy.

Taxonomic history

Strumigenys in Myrmicidae; Smith, F. 1871: 334; Cresson, 1887: 262.

Strumigenys in Myrmicidae, Cryptoceridae: Emery, 1877a: 81.

Strumigenys in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Emery & Forel, 1879: 464 [Myrmicidae]; Dalla Torre, 1893: 145.

Strumigenys in Cryptoceridae, Dacetini: Ashmead, 1905b: 384.

Strumigenys in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Forel, 1895a: 133; Emery, 1895e: 770; Forel, 1899: 42; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Arnold, 1917: 372; Wheeler, W.M. 1922a: 668; Emery, 1924: 319; Brown, 1948b: 108; all subsequent authors.

Junior synonyms of STRUMIGENYS

Labidogenys Roger, 1862a: 249. Type-species: *Labidogenys lyroessa*, by monotypy.

Taxonomic history

Labidogenys in Myrmicinae, Dacetini: Donisthorpe, 1943c: 654; Brown, 1948b: 102.

Labidogenys as genus: Roger, 1862a: 249; Brown, 1948b: 102.

Labidogenys as junior synonym of *Strumigenys*: Roger, 1863b: 40; Emery & Forel, 1879: 464; Dalla Torre, 1893: 145; Bingham, 1903: 147; Emery, 1924: 320; Brown & Wilson, 1959b: 281; Brown, 1960b: 38; Bolton, 1983: 358; Bolton, 1999: 1673; Bolton, 2000: 492.

Proscopomyrmex Patrizi, 1946: 294. Type-species: *Proscopomyrmex londianensis*, by monotypy.

Taxonomic history

Proscopomyrmex in Myrmicinae, Dacetini: Patrizi, 1946: 294 [Dacetonini].

Proscopomyrmex as junior synonym of *Strumigenys*: Brown, 1949d: 15; Bolton, 1999: 1673; Bolton, 2000: 492.

Eneria Donisthorpe, 1948c: 598. Type-species: *Eneria excisa* (junior synonym of *Strumigenys loriae*), by original designation.

Taxonomic history

Eneria as genus: Chapman & Capco, 1951: 104 (anachronism).

Eneria as junior synonym of *Strumigenys*: Brown, 1949d: 15; Bolton, 1999: 1673; Bolton, 2000: 492.

Quadristruma Brown, 1949b: 47. Type-species: *Epitritus emmae*, by original designation.

Taxonomic history

Quadristruma in Myrmicinae, Dacetini: Brown, 1949b: 47; all subsequent authors.

Quadristruma as junior synonym of *Strumigenys*: Baroni Urbani & De Andrade, 1994: 12; Bolton, 1999: 1673; Bolton, 2000: 492.

Genus references

Roger, 1863b: 40 (catalogue); Mayr, 1863: 424, 455 (catalogue); Mayr, 1865: 26 (diagnosis); Forel, 1886a: 216 (all species key); Mayr, 1887: 568 (all species key); Dalla Torre, 1893: 145 (catalogue); Emery, 1895b: 325 (North America species key); Emery, 1897b: 574 (New Guinea species key); Forel, 1903: 707 (India & Sri Lanka species key); Bingham, 1903: 147 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1908a: 146 (New World species key); Santschi, 1913b: 257 (Afrotropical species key); Arnold, 1917: 373 (diagnosis, South Africa species key); Mann, 1921: 467 (Fiji Is species key); Wheeler, W.M. 1922a: 917, 1034 (Afrotropical, Malagasy catalogues); Emery, 1924: 319 (diagnosis, catalogue); Brown, 1948b: 108 (diagnosis, review of genus); Brown, 1949d: 21 (Japan, China & Taiwan species key); Creighton, 1950a: 301 (North America species key); Chapman & Capco, 1951: 104, 107 (Asia *Eneria*, *Strumigenys* (*Strumigenys*) checklists); Brown, 1954e: 10 (Afrotropical species revision, key); Brown, 1958c: 38 (New Zealand species); Brown, 1962b: 238 (Neotropical species synopsis, key); Kempf, 1972a: 226, 243 (Neotropical *Quadristruma*, *Strumigenys* catalogues); Alayo, 1974: 19 (Cuba species key); Kempf, 1976: 43 (additions to Brown, 1962b key); Smith, D.R. 1979: 1403, 1409 (North America *Strumigenys*, *Quadristruma* catalogues); Bolton, 1983: 358, 400 (Afrotropical *Strumigenys*, *Quadristruma* species revisions, keys); Taylor & Brown, D.R. 1985: 85, 87 (Australia *Quadristruma*, *Strumigenys* catalogues); Taylor, 1987a: 66, 76 (Australia, New Caledonia & New Zealand checklists); Terayama & Kubota, 1989: 780 (Taiwan species key); Brandão, 1991: 380 (Neotropical catalogue); Arakelian & Dlussky, 1991: 150 (former U.S.S.R. species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 63 (Japan species key); Dlussky, 1993: 53 (Fiji Is, Tonga and Samoa species key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 377, 395 (catalogue); Gronenberg, 1996: 2021 (mandible morphology); Lin & Wu, 1996: 139 (Taiwan species key); Latke & Goitia, 1997: 370 (Venezuela species key); Shattuck, 1999: 160, 167 (Australia synopsis); Bolton, 1999: 1657, 1673 (morphology, diagnosis, review of genus, phylogeny); Bolton, 2000: 496, 583, 716, 942 (Neotropical-Nearctic, Afrotropical, Malesian-Oriental-East Palaearctic, Austral species revisions, keys); Fisher, 2000: 614 (Malagasy species revision, key); Zhou, 2001: 78 (China, Guangxi species key).

Tribe PHALACROMYRMECINI

Phalacromyrmecini Dlussky & Fedoseeva, 1988: 80. Type-genus: *Phalacromyrmex*.

Taxonomic history

[Phalacromyrmecini Wheeler, G.C. & Wheeler, J. 1976: 60 and Wheeler, G.C. & Wheeler, J. 1985: 258; unavailable names.]

Phalacromyrmecini as junior synonym of Dacetini: Baroni Urbani & De Andrade, 1994: 10.

Phalacromyrmecini tribe of Myrmicinae: Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106; Bolton, 1995b: 14; Bolton, 1998: 72. [*Taxonomy*, p. 54.]

Genera: *Ishakidris*, *Phalacromyrmex*, *Pilotrochus*.

Tribe references

Bolton, 1984: 381 (diagnosis, key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 14 (catalogue); Bolton, 1998: 72 (comparative morphology, monophyly, relationships).

Genera of Phalacromyrmecini**Genus ISHAKIDRIS**

Ishakidris Bolton, 1984: 374. Type-species: *Ishakidris ascitaspis*, by original designation.

Taxonomic history

Ishakidris in Myrmicinae, *Phalacromyrmex* genus group: Bolton, 1984: 382.

Ishakidris in Myrmicinae, Dacetini: Baroni Urbani & De Andrade, 1994: 31.

Ishakidris in Myrmicinae, Phalacromyrmecini: Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995a: 1050; Bolton, 1995b: 219. Bolton, 1998: 67.

Genus PHALACROMYRMEX

Phalacromyrmex Kempf, 1960a: 89. Type-species: *Phalacromyrmex fugax*, by original designation.

Taxonomic history

Phalacromyrmex incertae sedis in Myrmicinae: Kempf, 1960a: 90; Jaffe, 1993: 12 (anachronism).

Phalacromyrmex in Myrmicinae, Myrmicini: Kusnezov, 1964: 56.

Phalacromyrmex in Myrmicinae, Dacetini: Kempf, 1972a: 182; Baroni Urbani & De Andrade, 1994: 31.

Phalacromyrmex in Myrmicinae, *Phalacromyrmex* genus group: Bolton, 1984: 382.

Phalacromyrmex in Myrmicinae, *Phalacromyrmecini*: Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995a: 1051; Bolton, 1995b: 316; Bolton, 1998: 67.

Genus references

Bolton, 1984: 377 (review of genus).

Genus *PILOTROCHUS*

Pilotrochus Brown, 1978a: 218. Type-species: *Pilotrochus besmerus*, by original designation.

Taxonomic history

Pilotrochus incertae sedis in Myrmicinae: Brown, 1978a: 218.

Pilotrochus in Myrmicinae, *Phalacromyrmex* genus group: Bolton, 1984: 381.

Pilotrochus incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Pilotrochus in Myrmicinae, Dacetini: Baroni Urbani & De Andrade, 1994: 31.

Pilotrochus in Myrmicinae, *Phalacromyrmecini*: Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995a: 1051; Bolton, 1995b: 334; Bolton, 1998: 67.

Genus references

Bolton, 1984: 380 (review of genus).

Tribe CATAULACINI

Cataulacii Emery, 1895e: 771. Type-genus: *Cataulacus*.

Taxonomic history

Cataulacini as subfamily of Cryptoceridae: Ashmead, 1905b: 384 [Cataulacinae].

Cataulacini as tribe of Myrmicinae: Emery, 1895e: 771 [Cataulacii]; Wheeler, W.M. 1910d: 142 [Cataulacii]; Emery, 1914a: 39; Arnold, 1917: 386; Forel, 1917: 246; Wheeler, W.M. 1922a: 657; Emery, 1924: 294; all subsequent authors. [*Taxonomy*, p. 55.]

Genus: *Cataulacus*.

Tribe and genus references

Roger, 1863b: 39 (catalogue); Mayr, 1863: 402 (catalogue); Mayr, 1865: 26 (diagnosis); Mayr, 1870a: 413 (Colombia + Panama (= New Grenada) species key, see under *Procryptocerus*); Dalla Torre, 1893: 137 (catalogue); Forel, 1903: 706 (India & Sri Lanka species key); Bingham, 1903: 121 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1910d: 142 (diagnosis); Emery, 1914a: 39 (diagnosis (in key)); Arnold, 1917: 386 (diagnosis); Arnold, 1920: 403 (South Africa species key); Wheeler, W.M. 1922a: 197, 912, 1033 (diagnosis, Afrotropical, Malagasy catalogues); Emery, 1924: 294 (diagnosis, catalogue); Emery, 1924: 299 (*C. (Otomyrmex)* diagnosis, catalogue); Chapman & Capco, 1951: 84 (Asia checklist); Bolton, 1974a: 7 (revision of tribe, diagnosis); Bolton, 1974a: 13 (Afrotropical & Malagasy species revision, key); Bolton, 1974a: 59 (Oriental & Malesian species revision, key); Wheeler, G.C. & Wheeler, J. 1976: 59 (larvae, review & synthesis); Kugler, C. 1978a: 476 (sting structure); Bolton, 1982: 354 (Afrotropical species, revised key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 137 (catalogue).

Genus of Cataulacini

Genus *CATAULACUS*

Cataulacus Smith, F. 1853: 225. Type-species: *Cataulacus taprobanae*, by subsequent designation of Bingham, 1903: 120.

Taxonomic history

Cataulacus in Myrmicidae, Cryptoceridae: Smith, F. 1853: 225; Emery, 1877a: 81.

Cataulacus in Poneridae, Cryptoceridae: Smith, F. 1858b: 195.

Cataulacus in Formicidae, Cryptoceridae: Smith, F. 1857: 80; Smith, F. 1862c: 414.

Cataulacus in Cryptoceridae: Smith, F. 1862a: 49; Smith, F. 1871: 334; Smith, F. 1876: 609.

Cataulacus in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Dalla Torre, 1893: 137.

Cataulacus in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164.

Cataulacus in Cryptoceridae, Cataulacinae: Ashmead, 1905b: 384.

Cataulacus in Myrmicinae, Cataulacini: Emery, 1895e: 771; Wheeler, W.M. 1910d: 142; Emery, 1914a: 42; Forel, 1917: 246; Arnold, 1917: 386; Wheeler, W.M. 1922a: 665; all subsequent authors.

Junior synonym of *CATAULACUS*

Otomyrmex Forel, 1891b: 147 [as subgenus of *Cataulacus*]. Type-species: *Cataulacus oberthueri*, by monotypy.

Taxonomic history

Otomyrmex as subgenus of *Cataulacus*: Forel, 1891b: 147; Dalla Torre, 1893: 137; Forel, 1917: 246; Wheeler, W.M. 1910d: 142; Emery, 1924: 299.

Otomyrmex as junior synonym of *Cataulacus*: Wheeler, W.M. 1922a: 665 (in text); Brown, 1973b: 183 [provisional]; Bolton, 1974a: 7.

Genus references: see above.

Tribe CEPHALOTINI

Cephalotini Smith, M.R. 1949b: 19. Type-genus: *Cephalotes*.

Taxonomic history

Cephalotini as tribe of Myrmicinae: Smith, M.R. 1949b: 19; Kempf, 1951: 11; Kempf, 1952: 1; Kempf, 1958: 1; all subsequent authors. [*Taxonomy*, p. 56.]

Junior synonym of CEPHALOTINI

Cryptoceridae Smith, F. 1853: 214. Type-genus: *Cryptocerus* (junior synonym of *Cephalotes*).

Taxonomic history

Cryptoceridae as group of Myrmicidae: Smith, F. 1853: 214.

Cryptoceridae as subfamily of Poneridae: Smith, F. 1858b: 187.

Cryptoceridae as family: Smith, F. 1860a: 75; Smith, F. 1862a: 49; Smith, F. 1871: 334; Ashmead, 1905b: 383.

Cryptoceridae as subfamily of Formicidae: Smith, F. 1857: 79; Smith, F. 1862b: 35; Smith, F. 1862c: 408; Smith, F. 1867: 523.

Cryptoceridae as group of Myrmicinae: Emery, 1877a: 72.

Cryptoceridae as junior synonym of Myrmicinae: Emery & Forel, 1879: 456.

Cryptoceridae as tribe or subfamily of Myrmicidae: Forel, 1891b: 143 [Cryptocerini]; Emery, 1894b: 383 [Cryptocerinae].

Cryptoceridae as tribe of Myrmicinae: Forel, 1892c: 344 [Cryptocerini]; Forel, 1893a: 164 [Cryptocerii]; Forel, 1895a: 132 [Cryptocerii]; Emery, 1895e: 763 [Cryptocerii]; Forel, 1899: 43 [Cryptocerii]; Wheeler, W.M. 1910d: 141 [Cryptocerii]; Forel, 1892c: 344 [Cryptocerini]; Emery, 1914a: 39 [Cryptocerini]; Emery, 1915f: 192 [Cryptocerini]; Wheeler, W.M. 1915d: 491 [Cryptocerini (in text)]; Forel, 1917: 246 [Cryptocerini]; Wheeler, W.M. 1922a: 657 [Cryptocerini]; Emery, 1924: 299 [Cryptocerini]; all subsequent authors to the following; Wheeler, G.C. & Wheeler, J. 1976: 59 [Cryptocerini]; Dlussky & Fedoseeva, 1988: 79 [Cryptocerini (anachronism)].

Cryptoceridae as junior synonym of Cephalotini: Smith, M.R. 1949b: 18; Kempf, 1951: 11; all subsequent authors except for the above anachronisms.

Genera: *Cephalotes*, *Procryptocerus*.

Tribe references

Emery, 1895e: 771 (diagnosis); Wheeler, W.M. 1910d: 141 (diagnosis); Emery, 1914a: 39, 42 (diagnosis (in key), synoptic classification); Forel, 1917: 246 (synoptic classification); Wheeler, W.M. 1922a: 665 (genera key); Emery, 1924: 299 (diagnosis, genera key, catalogue); Kempf, 1951: 11 (revision of tribe, genera key); Kempf, 1958: 4 (Argentina fauna); Kempf, 1973b: 461 (genera); Wheeler, G.C. & Wheeler, J. 1976: 59 (larvae, review & synthesis); Kugler, C. 1978a: 473 (sting structure); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 391 (Neotropical fauna, synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1040 (census); Bolton, 1995b: 10 (catalogue); De Andrade & Baroni Urbani, 1999: 1 (diagnosis, all genera & revision).

Genera of Cephalotini

Genus CEPHALOTES

Cephalotes Latreille, 1802: 357. Type-species: *Formica atrata*, by monotypy.

Taxonomic history

[Type-species not *Formica cephalotes*, unjustified subsequent designation by Wheeler, W.M. 1911b: 160; corrected by Wheeler, W.M. 1913a: 78.]

Cephalotes in Myrmicinae, Cryptocerini: Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 303; all subsequent authors and Dlussky & Fedoseeva, 1988: 79 (anachronism).

Cephalotes in Myrmicinae, Cephalotini: Smith, M.R. 1949b: 19; Kempf, 1951: 105; all subsequent authors except the above.

Cephalotes as junior synonym of *Cryptocerus*: Fabricius, 1804: 419.

Junior synonyms of CEPHALOTES

Cryptocerus Latreille, 1803: 311. Type-species: *Formica atrata*, by subsequent designation of Latreille, 1810: 437.

Taxonomic history

[Type-species not *Cryptocerus umbraculatus*, unjustified subsequent designation by Emery, 1914b: 38, repeated in Emery, 1924: 305.]

Cryptocerus in Myrmicites: Lepeletier de Saint-Fargeau, 1835: 170.

Cryptocerus in Myrmicidae, Cryptoceridae: Smith, F. 1853: 214; Emery, 1877a: 81.

Cryptocerus in Poneridae, Cryptoceridae: Smith, F. 1858b: 187.

Cryptocerus in Cryptoceridae: Smith, F. 1876: 605.

Cryptocerus in Cryptoceridae, Cryptocerinae: Ashmead, 1905b: 384.

Cryptocerus in Myrmicinae: Mayr, 1865: 25 [Myrmicidae]; Mayr, 1866b: 907 [Myrmicidae]; Dalla Torre, 1893: 140.

Cryptocerus in Myrmicinae, Cryptocerini: Forel, 1892c: 345; Forel, 1893a: 164; Forel, 1895a: 133; Emery, 1895e: 771; Forel, 1899: 48; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 305; Wheeler, G.C. & Wheeler, J. 1976: 59.

Cryptocerus as junior synonym of *Cephalotes*: Wheeler, W.M. 1913a: 78; Donisthorpe, 1943c: 635; Smith, M.R. 1949b: 19; Kempf, 1951: 105; all subsequent authors except the above. [*Cephalotes* and

Cryptocerus share the same type-species, synonymy is therefore absolute.]

[*Cryptocephalus* Lowne, 1865: 336, incorrect subsequent spelling of *Cryptocerus* in the combination *Cryptocephalus pubescens*; current combination *Meranoplus pubescens*: Bolton, 1981a: 47.]

Zacryptocerus Wheeler, W.M. 1911b: 175 (see also footnote). Type-species: *Cryptocerus clypeatus*, by original designation.

Taxonomic history

[*Zacryptocerus* Ashmead, 1905b: 384, *nomen nudum*. (Based on a non-existent type-species: *Cryptocerus multistrigus*, *nomen nudum*, attributed to Smith, F.)]

Zacryptocerus in Myrmicinae, Cryptocerini: Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 304; all subsequent authors except the following; Dlussky & Fedoseeva, 1988: 79 (anachronism).

Zacryptocerus in Myrmicinae, Cephalotini: Kempf, 1951: 133; all subsequent authors.

Zacryptocerus as junior synonym of *Cephalotes*: De Andrade & Baroni Urbani, 1999: 59.

Paracryptocerus Emery, 1915f: 192 [as subgenus of *Cryptocerus*]. Type-species: *Cryptocerus spinosus*, by original designation.

Taxonomic history

Paracryptocerus in Myrmicinae, Cryptocerini: Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 306; Donisthorpe, 1943c: 680.

Paracryptocerus in Myrmicinae, Cephalotini: Smith, M.R. 1949b: 20; Kempf, 1951: 153; all subsequent authors.

Paracryptocerus as subgenus of *Cryptocerus*: Emery, 1915f: 192; Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 306.

Paracryptocerus as genus: Smith, M.R. 1949b: 20; Kempf, 1951: 153; Kempf, 1972a: 175.

Paracryptocerus as junior synonym of *Zacryptocerus*: Kempf, 1973b: 460; Smith, D.R. 1979: 1402.

Hypocryptocerus Wheeler, W.M. 1920: 53 [as subgenus of *Cryptocerus*]. Type-species: *Formica haemorrhoidalis*, by original designation.

Taxonomic history

Hypocryptocerus in Myrmicinae, Cryptocerini: Wheeler, W.M. 1922a: 665; Wheeler, W.M. 1936b: 200; Donisthorpe, 1943c: 652.

Hypocryptocerus in Myrmicinae, Cephalotini: Kempf, 1951: 143.

Hypocryptocerus as subgenus of *Cryptocerus*: Wheeler, W.M. 1920: 53; Wheeler, W.M. 1922a: 665.

Hypocryptocerus as genus: Wheeler, W.M. 1936b: 200; Kempf, 1951: 143; Kempf, 1972a: 120.

Hypocryptocerus as junior synonym of *Zacryptocerus*: Kempf, 1973b: 460; Smith, D.R. 1979: 1402.

Cyathomyrmex Creighton, 1933: 100 [as subgenus of *Cryptocerus*].

Taxonomic history

[Replacement name for *Cyathocephalus* Emery; junior homonym of *Cyathocephalus* Kessler, 1868: 135 (Cestoda).]

Cyathomyrmex in Myrmicinae, Cephalotini: Smith, M.R. 1949b: 21.

Cyathomyrmex as subgenus of *Cryptocerus*: Creighton, 1933: 100; Creighton, 1950a: 298.

Cyathomyrmex as subgenus of *Paracryptocerus*: Smith, M.R. 1949b: 21; Kempf, 1951: 156.

Cyathomyrmex as junior synonym of *Paracryptocerus*: Kempf, 1972a: 175.

Homonym replaced by *Cyathomyrmex*

Cyathocephalus Emery, 1915f: 192 [as subgenus of *Cryptocerus*]. Type-species: *Cryptocerus pallens*, by original designation.

Taxonomic history

[*Cyathocephalus* Emery junior homonym of *Cyathocephalus* Kessler, 1868: 135 (Cestoda).]

Cyathocephalus as subgenus of *Cryptocerus*: Emery, 1915f: 192; Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 311.

Harnedia Smith, M.R. 1949b: 20 [as subgenus of *Paracryptocerus*]. Type-species: *Cryptocerus umbraculatus*, by original designation.

Taxonomic history

Harnedia in Myrmicinae, Cephalotini: Smith, M.R. 1949b: 20; Kempf, 1951: 233.

Harnedia as subgenus of *Paracryptocerus*: Smith, M.R. 1949b: 20; Kempf, 1951: 233.

Harnedia as junior synonym of *Paracryptocerus*: Kempf, 1972a: 175.

Eucryptocerus Kempf, 1951: 127. Type-species: *Cryptocerus oculatus*, by original designation.

Taxonomic history

Eucryptocerus in Myrmicinae, Cephalotini: Kempf, 1951: 127; all subsequent authors except the following.

Eucryptocerus in Myrmicinae, Cryptocerini: Dlussky & Fedoseeva, 1988: 79 (anachronism).

Eucryptocerus as genus: Kempf, 1972a: 107; Kempf, 1973b: 460; Bolton, 1994: 105.

Eucryptocerus as junior synonym of *Cephalotes*: Brown, 1973b: 180 [provisional]; De Andrade & Baroni Urbani, 1999: 59.

**Exocryptocerus* Vierbergen & Scheven, 1995: 159. Type-species: **Exocryptocerus serratus*, by original designation.

Taxonomic history

**Exocryptocerus* as junior synonym of *Cephalotes*: De Andrade & Baroni Urbani, 1999: 59.

Genus references

Smith, F. 1853: 215 (diagnosis); Smith, F. 1858b: 187 (diagnosis); Roger, 1863b: 38 (catalogue); Mayr, 1863: 405 (catalogue); Mayr, 1865: 25 (diagnosis); Dalla Torre, 1893: 140 (catalogue); Santschi, 1920b: 149 (species key); Wheeler, W.M. 1922a: 665 (*Cryptocerus* subgenera, key); Emery, 1924: 303 (diagnosis,

catalogue); Emery, 1924: 304 (*Zacryptocerus* diagnosis, catalogue); Emery, 1924: 305 (*Cryptocerus* diagnosis, subgenera key, catalogue); Emery, 1924: 306 (*C. (Paracryptocerus)* diagnosis, catalogue); Emery, 1924: 308 (*C. (Cryptocerus)* diagnosis, catalogue); Emery, 1924: 311 (*C. (Cyathocephalus)* diagnosis, catalogue); Smith, M.R. 1947a: 29 (U.S.A. species key); Creighton, 1950a: 296 (North America species key); Kempf, 1951: 107 (diagnosis, revision, key); Kempf, 1951: 127 (*Eucryptocerus* species revision, key); Kempf, 1951: 134 (*Zacryptocerus* species revision, key); Kempf, 1951: 143 (*Hypocryptocerus* species revision, key); Kempf, 1951: 153 (*Paracryptocerus* species revision, key); Kempf, 1952: 5 (*Paracryptocerus (Harnedia) pinellii* complex revision, key); Kempf, 1958: 10 (Argentina *Paracryptocerus* species key); Kempf, 1958: 64 (*Paracryptocerus* subgenera, key); Kempf, 1958: 66 (*Paracryptocerus (Harnedia)* species revision, key); Kempf, 1958: 145 (*Paracryptocerus (Cyathomyrmex)* species revision, key); Kempf, 1960d: 443 (addition to 1958 key); Snelling, 1968a: 9 (*C. wheeleri* complex, key); Kempf, 1972a: 75, 107, 120, 175, 259 (Neotropical *Cephalotes*, *Eucryptocerus*, *Hypocryptocerus*, *Paracryptocerus*, *Zacryptocerus* catalogues); Kempf, 1974a: 73 (*Paracryptocerus pinellii* group, key); Smith, D.R. 1979: 1402 (North America catalogue); Hölldobler & Wilson, 1990: 13 (synoptic classification); Brandão, 1991: 337, 343, 383 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 140, 189, 424 (catalogue); De Andrade & Baroni Urbani, 1999: 736 (diagnosis, all species revision, key).

Genus *PROCRYPTOCERUS*

Procryptocerus Emery, 1887b: 470 (footnote). Type-species: *Meranoplus striatus*, by subsequent designation of Wheeler, W.M. 1911b: 171.

Taxonomic history

Procryptocerus in Myrmicinae: Dalla Torre, 1893: 139.

Procryptocerus in Cryptoceridae, Cryptocerinae: Ashmead, 1905b: 384.

Procryptocerus in Myrmicinae, Cryptocerini: Forel, 1892c: 345; Forel, 1893a: 164; Forel, 1895a: 132; Emery, 1895e: 771; Forel, 1899: 43; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 246; Wheeler, W.M. 1922a: 665; Emery, 1924: 300; all subsequent authors to the entry below; Dlussky & Fedoseeva, 1988: 79 (anachronism).

Procryptocerus in Myrmicinae, Cephalotini: Kempf, 1951: 14; all subsequent authors except anachronism above.

Genus references

Mayr, 1870a: 413 (Colombia + Panama (= New Grenada) species key (as *Cataulacus*)); Dalla Torre, 1893: 139 (catalogue); Emery, 1924: 300 (diagnosis, catalogue); Kempf, 1951: 15 (diagnosis, all species revision, key); Kempf, 1972a: 211 (Neotropical catalogue); Brandão, 1991: 373 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 367 (catalogue); Longino & Snelling, 2002: 4 (Central America species key).

Tribe ATTINI

Attidae Smith, F. 1858b: 161. Type-genus: *Atta*.

Taxonomic history

Attini as subfamily of Formicidae: Smith, F. 1858b: 161 [Attidae]; Smith, F. 1862b: 34 [Attidae].

Attini as family: Smith, F. 1861: 48 [Attidae]; Smith, F. 1863: 21 [Attidae].

Attini as group of Myrmicidae: Emery, 1877a: 72 [Attidae].

Attini as junior synonym of Myrmicidae: Emery & Forel, 1879: 457 [Attidae].

Attini as subfamily of Myrmicidae: Emery, 1894b: 385 [Attinae].

Attini as tribe of Myrmicidae: Forel, 1891b: 143.

Attini as subfamily of Cryptoceridae: Ashmead, 1905b: 383 [Attinae].

Attini as tribe of Myrmicinae: Forel, 1892c: 344; Forel, 1893a: 163 [Attii]; Forel, 1895a: 137 [Attii]; Emery, 1895e: 770 [Attii]; Forel, 1899: 30 [Attii]; Wheeler, W.M. 1910d: 141 [Attii]; Emery, 1913b: 251; Emery, 1914a: 39; Forel, 1917: 247; Wheeler, W.M. 1922a: 658; Emery, 1924: 330; all subsequent authors. [*Taxonomy*, p. 56.]

Genera: *Acromyrmex*, *Apterostigma*, *Atta*, *Cyphomyrmex*, *Mycetagroicus*, *Mycetarotes*, *Mycetophylax*, *Mycetosoritis*, *Mycocarpus*, *Myrmicocrypta*, *Pseudoatta*, *Sericomyrmex*, *Trachymyrmex*.

Ichnotaxon: **Attaichnus*.

Tribe references

Emery, 1895e: 770 (diagnosis); Wheeler, W.M. 1907: 669 (North America fauna); Wheeler, W.M. 1910d: 141 (diagnosis); Emery, 1912b: 101 (phylogeny); Emery, 1913b: 251 (synoptic classification); Emery, 1914a: 39, 42 (diagnosis (in key), synoptic classification); Gallardo, 1916c: 318 (Argentina genera, key); Forel, 1917: 247 (synoptic classification); Wheeler, W.M. 1922a: 668 (genera key); Emery, 1924: 330 (diagnosis, genera key, catalogue); Kusnezov, 1964: 147 (phylogeny); Wheeler, G.C. & Wheeler, J. 1976: 60 (larvae, review & synthesis); Kugler, C. 1978a: 477 (sting structure); Weber, 1982: 255 (synopsis); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 392 (Neotropical fauna, synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1040 (census); Bolton, 1995b: 9 (catalogue); Schultz & Meier, 1995: 337 (phylogeny, larvae); Lattke, 1999: 2 (phylogeny, partial); Brandão & Mayhé-Nunes, 2001: 661 (monophyly).

Genera of Attini

Genus *ACROMYRMEX*

Acromyrmex Mayr, 1865: 83 [as subgenus of *Atta*]. Type-species: *Formica hystrix*, by monotypy.

Taxonomic history

Acromyrmex in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Acromyrmex in Myrmicinae, Attini: Emery, 1895e: 770; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 347; all subsequent authors.

Acromyrmex as subgenus of *Atta*: Mayr, 1865: 83; Forel, 1885: 354; Dalla Torre, 1893: 151; Forel, 1893a: 163; Emery, 1895e: 770; Forel, 1899: 30; Emery, 1905: 39; Wheeler, W.M. 1907: 670; Wheeler, W.M. 1910d: 141; Wheeler, W.M. 1922a: 669.

Acromyrmex as genus: Emery, 1913b: 251; Forel, 1917: 247; Emery, 1924: 347; Santschi, 1925a: 355; all subsequent authors.

Subgenera of *ACROMYRMEX* include the nominal plus the following.

Subgenus *ACROMYRMEX* (*MOELLERIUS*)

Moellerius Forel, 1893d: 589 [as subgenus of *Atta*]. Type-species: *Atta (Acromyrmex) landolti*, by subsequent designation of Wheeler, W.M. 1911b: 167.

Taxonomic history

Moellerius as subgenus of *Atta*: Forel, 1893d: 589; Forel, 1899: 30; Emery, 1905: 39; Wheeler, W.M. 1907: 669; Wheeler, W.M. 1910d: 141; Wheeler, W.M. 1922a: 669.

Moellerius as junior synonym of *Acromyrmex*: Brown, 1973b: 182 [provisional].

Moellerius as subgenus of *Acromyrmex*: Emery, 1913b: 251; Forel, 1917: 247; Emery, 1924: 350; all subsequent authors except the above.

Genus references

Forel, 1885: 361 (all species key); Emery, 1905: 40 (all species key); Gallardo, 1916c: 325 (Argentina species key); Emery, 1924: 347 (diagnosis, catalogue); Emery, 1924: 350 (*A. (Moellerius)* diagnosis, catalogue); Santschi, 1925a: 388 (all species revision, key); Creighton, 1950a: 326 (North America species key); Kusnezov, 1956: 33 (Argentina species key); Gonçalves, 1961: 118 (Brazil species revision, key); Kempf, 1972a: 10 (Neotropical catalogue); Alayo, 1974: 42 (Cuba checklist); Smith, D.R. 1979: 1412 (North America catalogue); Fowler, 1988: 284 (*A. (Moellerius)* species key); Cherrett & Cherrett, 1989: 1 (bibliography); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 54 (catalogue).

Genus *APTEROSTIGMA*

Apterostigma Mayr, 1865: 111. Type-species: *Apterostigma pilosum*, by monotypy.

Taxonomic history

Apterostigma in Myrmicinae: Mayr, 1865: 25 [Myrmicidae]; Dalla Torre, 1893: 149.

Apterostigma in Myrmicinae, Pheidolini: Emery, 1877a: 81 [Pheidolidae].

Apterostigma in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Apterostigma in Myrmicinae, Attini: Forel, 1893a: 164; Emery, 1895e: 770; Forel, 1899: 37; Wheeler, W.M. 1910d: 141; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 337; all subsequent authors.

Genus references

Dalla Torre, 1893: 149 (catalogue); Wheeler, W.M. 1911d: 207 (species key); Emery, 1924: 337 (diagnosis, catalogue); Kempf, 1972a: 23 (catalogue); Brandão, 1991: 326 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 74 (catalogue); Lattke, 1997: 121 (diagnosis, all species revision, key).

Genus *ATTA*

Atta Fabricius, 1804: 421. Type-species: *Formica cephalotes*, by subsequent designation of Wheeler, W.M. 1911b: 159.

Taxonomic history

Atta in Myrmicites: Lepeletier de Saint-Fargeau, 1835: 172.

Atta in Poneridae, Attidae: Smith, F. 1858b: 161.

Atta in Myrmicinae: Mayr, 1855: 459 [Myrmicidae]; Smith, F. 1857: 77 [Myrmicidae]; Mayr, 1861: 65 [Myrmicidae]; Mayr, 1865: 18 [Myrmicidae]; Smith, F. 1871: 333 [Myrmicidae]; Cresson, 1887: 259 [Myrmicidae]; Dalla Torre, 1893: 150.

Atta in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Atta in Myrmicinae, Attini: Emery, 1877a: 81 [Myrmicidae, Attidae]; Forel, 1893a: 163; Emery, 1895e: 770; Forel, 1899: 30; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 352; all subsequent authors.

[*Myrmegis* (*nomen nudum*) referable to *Atta*: Brown, 1973b: 182; Bolton, 1995b: 36.]

Junior synonyms of *ATTA*

Oecodoma Latreille, 1818: 222. Type-species: *Formica cephalotes*, by subsequent designation of Shuckard, in Swainson & Shuckard, 1840: 174.

Taxonomic history

Oecodoma in Myrmicites: Lepeletier de Saint-Fargeau, 1835: 176.

Oecodoma in Poneridae, Attidae: Smith, F. 1858b: 180.

Oecodoma as junior synonym of *Atta*: Roger, 1863b: 35.

Archeatta Gonçalves, 1942: 342 [as subgenus of *Atta*]. Type-species: *Oecodoma mexicana*, by original designation.

Taxonomic history

Archeatta as subgenus of *Atta*: Gonçalves, 1942: 342; Borgmeier, 1959b: 350; Kempf, 1972a: 27.

Archeatta as junior synonym of *Atta*: Smith, M.R. 1951: 832; Weber, 1958a: 8; Brown, 1973b: 178 [provisional]; Bolton, 1994: 105.

Neoatta Gonçalves, 1942: 346 [as subgenus of *Atta*]. Type-species: *Formica sexdens*, by original designation.

Taxonomic history

Neoatta as subgenus of *Atta*: Gonçalves, 1942: 346; Borgmeier, 1959b: 358; Kempf, 1972a: 27.

Neoatta as junior synonym of *Atta*: Weber, 1958a: 8; Brown, 1973b: 183 [provisional]; Bolton, 1994: 105.

Palaeatta Borgmeier, 1950c: 244 [as subgenus of *Atta*]. Type-species: *Atta bisphaerica*, by original designation.

Taxonomic history

Palaeatta as subgenus of *Atta*: Borgmeier, 1950c: 244; Borgmeier, 1959b: 377; Kempf, 1972a: 28.

Palaeatta as junior synonym of *Atta*: Weber, 1958a: 8; Brown, 1973b: 183 [provisional]; Bolton, 1994: 105.

Epiatta Borgmeier, 1950c: 246 [as subgenus of *Atta*]. Type-species: *Oecodoma laevigata*, by original designation.

Taxonomic history

Epiatta as junior synonym of *Atta*: Weber, 1958a: 8.

Epiatta as junior synonym of *Neoatta*: Borgmeier, 1959b: 358.

Genus references

Mayr, 1855: 459 (diagnosis); Smith, F. 1858b: 161, 180 (*Atta*, *Oecodoma* diagnoses); Mayr, 1861: 66 (Europe species key); Roger, 1863b: 35 (catalogue); Mayr, 1863: 395, 437 (catalogue); Mayr, 1865: 18 (diagnosis); Cresson, 1887: 259 (U.S.A. catalogue); Dalla Torre, 1893: 150 (catalogue); Gallardo, 1916c: 340 (Argentina species key); Emery, 1924: 352 (diagnosis, catalogue); Gonçalves, 1942: 334 (all species key); Gonçalves, 1945: 186 (south & central Brazil species key); Chapman & Capco, 1951: 82 (Asia checklist, anachronisms); Borgmeier, 1959b: 335 (subgenera key); Borgmeier, 1959b: 337 (diagnosis, all species revision, key); Kempf, 1972a: 26 (Neotropical catalogue); Smith, D.R. 1979: 1413 (North America catalogue); MacKay & MacKay, 1988: 25 (Colombia species key); Cherrett & Cherrett, 1989: 1 (bibliography); Brandão, 1991: 328 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 75 (catalogue).

Genus *CYPHOMYRMEX*

Cyphomyrmex Mayr, 1862: 651 (diagnosis in key), 690. Type-species: *Cyphomyrmex minutus*, by monotypy.

Taxonomic history

[Type-species not *Cryptocerus rimosus*, unjustified subsequent designation by Wheeler, W.M. 1911b: 161.

Type-species not *Cyphomyrmex difformis*, unjustified subsequent designation by Emery, 1924: 340.]

Cyphomyrmex in Formicinae: Mayr, 1862: 651 (in key) [Formicidae].

Cyphomyrmex in Myrmicidae, Cryptoceridae: Emery, 1877a: 81.

Cyphomyrmex in Myrmicinae: Mayr, 1865: 25 [Myrmicidae]; Dalla Torre, 1893: 149.

Cyphomyrmex in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Cyphomyrmex in Myrmicinae, Attini: Forel, 1893a: 164; Emery, 1895e: 770; Forel, 1899: 40; Wheeler, W.M. 1907: 670; Wheeler, W.M. 1910d: 141; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 339; all subsequent authors.

Cyphomyrmex as junior synonym of *Cataulacus*: Roger, 1863b: 39.

Cyphomyrmex as subgenus of *Atta*: Forel, 1912b: 188.

Cyphomyrmex as genus: Mayr, 1862: 690; Mayr, 1863: 406; Emery, 1913b: 251; Bruch, 1914: 217; Emery, 1914a: 42; Wheeler, W.M. 1922a: 669; Emery, 1924: 339; all subsequent authors.

Junior synonym of *CYPHOMYRMEX*

Cyphomannia Weber, 1938: 183 [as subgenus of *Cyphomyrmex*]. Type-species: *Cyphomyrmex* (*Cyphomannia*) *laevigatus*, by original designation.

Taxonomic history

Cyphomannia as subgenus of *Cyphomyrmex*: Weber, 1938: 183; Weber, 1966: 166.

Cyphomannia as junior synonym of *Cyphomyrmex*: Kempf, 1962b: 29; Kempf, 1968a: 39; Kempf, 1972a: 92; Bolton, 1994: 105.

Genus references

Mayr, 1863: 406 (catalogue); Mayr, 1865: 25 (diagnosis); Mayr, 1887: 556 (all species key); Dalla Torre, 1893: 149 (catalogue); Emery, 1924: 340 (diagnosis, subgenera key, catalogue); Kusnezov, 1949c: 436 (Argentina species key); Weber, 1940: 408 (all species key); Creighton, 1950a: 316 (North America species key); Kusnezov, 1957b: 9 (Neotropical species, partial key); Kempf, 1962b: 30 (species groups); Kempf, 1964a: 5 (*C. strigatus* group revision, key); Kempf, 1966: 161 (*C. rimosus* group revision, key); Kempf, 1972a: 92 (Neotropical catalogue); Smith, D.R. 1979: 1410 (North America catalogue); Brandão, 1991: 339 (catalogue); Snelling & Longino, 1992: 480 (*C. rimosus* group revision, key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 167 (catalogue).

MYCETAGROICUS

Mycetagroicus Brandão & Mayhé-Nunes, 2001: 641. Type-species: *Mycetagroicus cerradensis*, by original designation.

Taxonomic history

Mycetagroicus in Myrmicinae, Attini: Brandão & Mayhé-Nunes, 2001: 639.

Genus references

Brandão & Mayhé-Nunes, 2001: 643 (all species key).

Genus MYCETAROTES

Mycetarotes Emery, 1913b: 251 [as subgenus of *Cyphomyrmex*]. Type-species: *Cyphomyrmex parallelus*, by original designation.

Taxonomic history

Mycetarotes in Myrmicinae, Attini: Emery, 1913b: 251; Emery, 1924: 342; all subsequent authors.

Mycetarotes as subgenus of *Cyphomyrmex*: Emery, 1913b: 251; Forel, 1917: 247; Emery, 1924: 342.

Mycetarotes as genus: Borgmeier, 1950a: 384; all subsequent authors.

Genus references

Emery, 1924: 342 (diagnosis, catalogue); Kempf, 1960c: 279 (review of genus, key); Kempf, 1972a: 144 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 268 (catalogue); Mayhé-Nunes, 1995: 197 (review of genus).

Genus MYCETOPHYLAX

Mycetophylax Emery, 1913b: 251 [as subgenus of *Cyphomyrmex*]. Type-species: *Myrmicocrypta brittoni* (junior synonym of *Mycetophylax conformis*), by original designation.

Taxonomic history

Mycetophylax in Myrmicinae, Attini: Emery, 1913b: 251; Emery, 1924: 343; all subsequent authors.

Mycetophylax as subgenus of *Cyphomyrmex*: Emery, 1913b: 251; Forel, 1917: 247; Emery, 1924: 343; Donisthorpe, 1943c: 663.

Mycetophylax as subgenus of *Myrmicocrypta*: Gallardo, 1916c: 320.

Mycetophylax as genus: Santschi, 1923c: 268; Weber, 1958b: 262; Kusnezov, 1964: 63; Kempf, 1972a: 145.

[*Mycetopurus* Santschi, 1925b: 17, incorrect subsequent spelling. (Perhaps a combination in error of *Myceto*(phylax) + (*Mycoco*)*purus*: Bolton, 1995b: 36).]

Junior synonym of MYCETOPHYLAX

Paramycetophylax Kusnezov, 1956: 24 (diagnosis in key). Type-species: *Sericomyrmex bruchi*, by original designation.

Taxonomic history

Paramycetophylax as junior synonym of *Mycetophylax*: Weber, 1958b: 262.

Genus references

Santschi, 1922a: 357 (species key); Emery, 1924: 343 (diagnosis, catalogue); Kempf, 1972a: 145 (catalogue); Brandão, 1991: 357 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 268 (catalogue).

Genus MYCETOSORITIS

Mycetosoritis Wheeler, W.M. 1907: 714 [as subgenus of *Atta*]. Type-species: *Atta (Mycetosoritis) hartmanni*, by monotypy.

Taxonomic history

Mycetosoritis in Myrmicinae, Attini: Emery, 1913b: 251; Wheeler, W.M. 1922a: 669; Emery, 1924: 343; all subsequent authors.

Mycetosoritis as subgenus of *Atta*: Wheeler, W.M. 1907: 670; Wheeler, W.M. 1910d: 141.

Mycetosoritis as subgenus of *Cyphomyrmex*: Emery, 1913b: 251; Forel, 1917: 247; Emery, 1924: 343; Donisthorpe, 1943c: 663; Kusnezov, 1949c: 444; Kusnezov, 1956: 23.

Mycetosoritis as subgenus of *Trachymyrmex*: Wheeler, W.M. 1922a: 669.

Mycetosoritis as genus: Creighton, 1950a: 317; Kempf, 1972a: 146.

Genus references

Kempf, 1972a: 146 (catalogue); Smith, D.R. 1979: 1410 (North America catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 269 (catalogue).

Genus MYCOCEPURUS

Mycocarpus Forel, 1893d: 602 [as subgenus of *Atta*]. Type-species: *Atta (Mycocarpus) smithii*, by subsequent designation of Wheeler, W.M. 1911b: 167.

Taxonomic history

[*Mycocarpus* Forel, 1893a: 164, *nomen nudum*. *Mycocarpus* also described as new by Forel, 1893f: 369.] *Mycocarpus* in Myrmicinae: Forel, 1893f: 369.

Mycocarpus in Cryptoceridae, Dacetoniini: Ashmead, 1905b: 384.

Mycocarpus in Myrmicinae, Attini: Emery, 1895e: 770; Wheeler, W.M. 1910d: 141; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 334; all subsequent authors.

Mycocarpus as subgenus of *Atta*: Forel, 1893d: 602; Forel, 1893f: 369; Wheeler, W.M. 1907: 670;

Wheeler, W.M. 1910d: 141.

Mycocepurus as genus: Wheeler, W.M. 1911b: 167; Emery, 1913b: 251; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 334; all subsequent authors.

[*Mycetopurus* Santschi, 1925b: 17, incorrect subsequent spelling. (Perhaps a combination in error of *Myceto*(phylax) + (*Mycoce*)*purus*: Bolton, 1995b: 36).]

Junior synonym of *MYCOCEPURUS*

Descolemymra Kusnezov, 1951b: 460. Type-species: *Descolemymra ogloblini* (junior synonym of *Mycocepurus goeldii*), by monotypy.

Taxonomic history

Descolemymra in Myrmicinae, Attini: Kusnezov, 1951b: 460.

Descolemymra as junior synonym of *Mycocepurus*: Kempf, 1963b: 417.

Genus references

Emery, 1924: 334 (diagnosis, catalogue); Kempf, 1963b: 417 (diagnosis, all species revision); Kempf, 1972a: 146 (catalogue); Brandão, 1991: 358 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 269 (catalogue); Mayhé-Nunes & Meneguete, 2000: 6 (all species key).

Genus MYRMICOCRYPTA

Myrmicocrypta Smith, F. 1860c: 73. Type-species: *Myrmicocrypta squamosa*, by monotypy.

Taxonomic history

Myrmicocrypta in Myrmicinae: Mayr, 1865: 25 [Myrmicidae]; Dalla Torre, 1893: 150.

Myrmicocrypta in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Myrmicocrypta in Myrmicinae, Attini: Forel, 1893a: 164; Emery, 1895e: 770; Forel, 1899: 38; Wheeler, W.M. 1910d: 141; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 335; all subsequent authors.

Junior synonym of *MYRMICOCRYPTA*

Glyptomyrmex Forel, 1885: 365. Type-species: *Glyptomyrmex dilaceratum*, by monotypy.

Taxonomic history

Glyptomyrmex in Myrmicinae, Attini: Forel, 1892c: 344; Forel, 1893a: 164.

Glyptomyrmex as junior synonym of *Myrmicocrypta*: Emery, 1894a: 224.

Genus references

Roger, 1863b: 35 (catalogue); Mayr, 1863: 436 (catalogue); Mayr, 1865: 25 (diagnosis); Dalla Torre, 1893: 149, 150 (*Glyptomyrmex*, *Myrmicocrypta* catalogues); Emery, 1924: 335 (diagnosis catalogue); Kempf, 1972a: 151 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 286 (catalogue).

Genus PSEUDOATTA

Pseudoatta Gallardo, 1916c: 320. Type-species: *Pseudoatta argentina*, by monotypy.

Taxonomic history

Pseudoatta in Myrmicinae, Attini: Emery, 1924: 346; all subsequent authors.

Pseudoatta as junior synonym of *Acromyrmex*: Brown, 1973b: 184 [provisional].

Genus references

Emery, 1924: 346 (diagnosis, catalogue); Kempf, 1972a: 214 (catalogue); Bolton, 1995a: 1052 (census); Bolton, 1995b: 369 (catalogue).

Genus SERICOMYRMEX

Sericomyrmex Mayr, 1865: 18. Type-species: *Sericomyrmex opacus*, by monotypy.

Taxonomic history

Sericomyrmex in Myrmicidae, Attidae: Emery, 1877a: 81.

Sericomyrmex in Myrmicinae: Mayr, 1865: 18 [Myrmicidae]; Dalla Torre, 1893: 150.

Sericomyrmex in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Sericomyrmex in Myrmicinae, Attini: Forel, 1893a: 164; Emery, 1895e: 770; Forel, 1899: 37; Wheeler, W.M. 1910d: 141; Emery, 1913b: 251; Emery, 1914a: 42; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 338; all subsequent authors.

Genus references

Dalla Torre, 1893: 150 (catalogue); Forel, 1912b: 191 (all species key); Wheeler, W.M. 1916b: 10 (all species key); Emery, 1924: 338 (diagnosis, catalogue); Kempf, 1972a: 229 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 382 (catalogue).

Genus TRACHYMYRMEX

Trachymyrmex Forel, 1893d: 600 [as subgenus of *Atta*]. Type-species: *Atta septentrionalis*, by subsequent designation of Wheeler, W.M. 1911b: 174.

Taxonomic history

Trachymyrmex in Cryptoceridae, Attinae: Ashmead, 1905b: 384.

Trachymyrmex in Myrmicinae, Attini: Emery, 1895e: 770; Emery, 1913b: 251; Forel, 1917: 247; Wheeler, W.M. 1922a: 669; Emery, 1924: 344; all subsequent authors.

Trachymyrmex as subgenus of *Atta*: Forel, 1893d: 600; Emery, 1895e: 770; Forel, 1893d: 600; Forel, 1899: 30; Wheeler, W.M. 1907: 670; Wheeler, W.M. 1910d: 141.

Trachymyrmex as subgenus of *Cyphomyrmex*: Emery, 1913b: 251; Emery, 1924: 344; Donisthorpe, 1943d:

733.

Trachymyrmex as subgenus of *Acromyrmex*: Forel, 1917: 247.*Trachymyrmex* as genus: Gallardo, 1916b: 242; Gallardo, 1916c: 318; Wheeler, W.M. 1916b: 11; Wheeler, W.M. 1922a: 669; Borgmeier, 1927b: 128; Borgmeier, 1950a: 384; Kusnezov, 1964: 63; Kempf, 1972a: 252.**Genus references**

Wheeler, W.M. 1911c: 248 (all species key); Emery, 1924: 344 (diagnosis, catalogue); Creighton, 1950a: 320 (North America species key); Kempf, 1972a: 252 (Neotropical catalogue); Smith, D.R. 1979: 1411 (North America catalogue); Brandão, 1991: 382 (catalogue); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 420 (catalogue); Mayhé-Nunes & Brandão, 2002: 672 (diagnosis, *T. opulentus* group key).

Ichnotaxon attached to Attini***ATTAICHNUS**

**Attaichnus* Laza, 1982: 112. Included ichnospecies: **Attaichnus kuenzelii*. [Ichnofossil, purportedly fossil traces of workings attributable to attine ants.]

Tribe BLEPHARIDATTINI

Blepharidattini Wheeler, G.C. & Wheeler, J. 1991: 133. Type-genus: *Blepharidatta*.

Taxonomic history

Blepharidattini as tribe of Myrmicinae: Wheeler, G.C. & Wheeler, J. 1991: 133; Bolton, 1994: 105; Bolton, 1995b: 9. [*Taxonomy*, p. 57.]

Genera: *Blepharidatta*, *Wasmannia*.

Genera of Blepharidattini**Genus BLEPHARIDATTA**

Blepharidatta Wheeler, W.M. 1915d: 484. Type-species: *Blepharidatta brasiliensis*, by monotypy.

Taxonomic history

Blepharidatta in Myrmicinae, Attini: Wheeler, W.M. 1915d: 486; Gallardo, 1916c: 318; Forel, 1917: 247; Wheeler, W.M. 1922a: 668.

Blepharidatta in Myrmicinae, Dacetini: Emery, 1924: 315; Donisthorpe, 1943c: 628.

Blepharidatta in Myrmicinae, Ochetomyrmecini: Brown, 1953d: 4; Kusnezov, 1964: 59; Kempf, 1972a: 37.

Blepharidatta in Myrmicinae, Blepharidattini: Wheeler, G.C. & Wheeler, J. 1991: 133; Bolton, 1994: 105.

Blepharidatta incertae sedis in Myrmicinae: Kempf, 1975b: 358; Jaffe, 1993: 12.

Blepharidatta as junior synonym of *Ochetomyrmex*: Brown, 1973b: 179 [provisional].

Blepharidatta as genus: Kempf, 1975b: 369; Wheeler, G.C. & Wheeler, J. 1991: 132; Bolton, 1994: 100.

Genus references

Emery, 1924: 315 (diagnosis, catalogue); Kempf, 1972a: 37 (catalogue); Kempf, 1975b: 369 (review); Wheeler, G.C. & Wheeler, J. 1991: 132 (review); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue).

Genus WASMANNIA

Wasmannia Forel, 1893f: 383. Type-species: *Tetramorium auropunctatum*, by subsequent designation of Wheeler, W.M. 1911b: 174.

Taxonomic history

Wasmannia in Myrmicinae: Forel, 1893f: 383.

Wasmannia in Myrmicinae, Myrmicini: Forel, 1895a: 126; Forel, 1899: 54.

Wasmannia in Myrmicinae, Attini: Emery, 1895e: 770.

Wasmannia in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Wasmannia in Myrmicinae, Tetramorini: Wheeler, W.M. 1910d: 141.

Wasmannia in Myrmicinae, Ochetomyrmecini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664, 912; Emery, 1924: 293; all subsequent authors to the following.

Wasmannia incertae sedis in Myrmicinae: Kempf, 1975b: 358; Jaffe, 1993: 12.

Wasmannia in Myrmicinae, Blepharidattini: Bolton, 1994: 105.

Wasmannia as junior synonym of *Ochetomyrmex*: Brown, 1973b: 185 [provisional].

Wasmannia as genus: Kempf, 1975b: 357; Snelling, 1981: 398; Bolton, 1994: 100, 102.

Junior synonym of *WASMANNIA*

Hercynia Enzmann, J. 1947a: 43. Type-species: *Hercynia panamana* (junior synonym of *Wasmannia auropunctata*), by monotypy.

Taxonomic history

Hercynia as junior synonym of *Wasmannia*: Brown, 1948a: 102.

Genus references

Wheeler, W.M. 1922a: 912 (Afrotropical catalogue); Emery, 1924: 293 (diagnosis, catalogue); Kusnezov, 1952e: 181 (Argentina species key); Kempf, 1972a: 257 (catalogue); Taylor, 1987a: 81 (New Caledonia checklist); Brandão, 1991: 383 (catalogue); Bolton, 1995a: 1053 (census); Bolton, 1995b: 423 (catalogue).

Tribe STENAMMINI

Stenammini Ashmead, 1905b: 383. Type-genus: *Stenamma*.

Taxonomic history

Stenammini as subtribe of *Pheidolini*: Emery, 1921b: 52.

Stenammini as subtribe of *Myrmicini*: Emery, 1924: 357.

Stenammini as tribe of *Myrmicinae*: Ashmead, 1905b: 383; Bolton, 1994: 106. [*Taxonomy*, p. 58.]

Junior synonyms of STENAMMINI

Proattini Forel, 1917: 232. Type-genus: *Proatta*.

Taxonomic history

Proattini as tribe of *Myrmicinae*: Forel, 1917: 232; Wheeler, W.M. 1922a: 658.

Proattini as subtribe of *Attini*: Emery, 1924: 333.

Proattini as junior synonym of *Stenammini*: Bolton, 1994: 106.

Calyptomyrmecini Dlussky & Fedoseeva, 1988: 80. Type-genus: *Calyptomyrmex*.

Taxonomic history

Calyptomyrmecini as tribe of *Myrmicinae*: Dlussky & Fedoseeva, 1988: 80.

Calyptomyrmecini as junior synonym of *Stenammini*: Bolton, 1994: 106.

Genera: *Ancyridris*, *Bariamyрма*, *Calyptomyrmex*, *Cyphoidris*, *Dacatria*, *Dacatinops*, *Dicroaspis*, *Indomyрма*, *Lachnomyrmex*, *Lasiomyрма*, *Lordomyрма*, *Proatta*, *Rogeria*, *Rostromyrmex*, *Stenamma*, *Tetheamyрма*, *Vollenhovia*.

Genera *incertae sedis*: *Adelomyrmex*, *Baracidris*, **Illemomyrmex*.

Tribe references

Emery, 1921b: 52 (diagnosis, catalogue); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1042 (census); Bolton, 1995b: 16 (catalogue).

Genera of Stenammini**Genus ANCYRIDRIS**

Ancyridris Wheeler, W.M. 1935a: 1. Type-species: *Ancyridris polyrhachioides*, by original designation.

Taxonomic history

Ancyridris in *Myrmicinae*, *Pheidolini*: Wheeler, W.M. 1935a: 5.

Ancyridris in *Myrmicinae*, *Stenammini*: Bolton, 1994: 106; Bolton, 1995b: 63.

Ancyridris as junior synonym of *Lordomyрма*: Brown, 1973b: 178 [provisional].

Ancyridris as genus: Bolton, 1994: 90.

Genus BARIAMYRMA

Bariamyрма Latkke, 1990a: 173. Type-species: *Bariamyрма hispidula*, by original designation.

Taxonomic history

Bariamyрма in *Myrmicinae*, *Leptothoracini*: Jaffe, 1993: 11.

Bariamyрма in *Myrmicinae*, *Stenammini*: Bolton, 1994: 106; Bolton, 1995a: 1048; Bolton, 1995b: 80.

Genus CALYPTOMYRMEX

Calyptomyrmex Emery, 1887b: 471. Type-species: *Calyptomyrmex beccarii*, by monotypy.

Taxonomic history

Calyptomyrmex in *Myrmicinae*: Dalla Torre, 1893: 136.

Calyptomyrmex in *Myrmicinae*, *Tetramoriini*: Emery, 1895e: 770; Wheeler, W.M. 1910d: 141.

Calyptomyrmex in *Cryptoceridae*, *Cataulacinae*: Ashmead, 1905b: 384.

Calyptomyrmex in *Myrmicinae*, *Meranoplini*: Emery, 1914a: 41; Forel, 1917: 244; Arnold, 1917: 360; Wheeler, W.M. 1922a: 664; Emery, 1924: 224; Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 7 (in key); all subsequent authors to the following.

Calyptomyrmex in *Myrmicinae*, *Calyptomyrmecini*: Dlussky & Fedoseeva, 1988: 80.

Calyptomyrmex in *Myrmicinae*, *Stenammini*: Bolton, 1994: 106.

Junior synonym of CALYPTOMYRMEX

Weberidris Donisthorpe, 1949a: 281. Type-species: *Weberidris rufobrunnea* (junior synonym of *Calyptomyrmex beccarii*), by original designation.

Taxonomic history

Weberidris in *Myrmicinae*, *Dacetini*: Donisthorpe, 1949a: 281.

Weberidris as junior synonym of *Calyptomyrmex*: Donisthorpe, 1949c: 186; Brown, 1949f: 84.

Genus references

Dalla Torre, 1893: 136 (catalogue); Arnold, 1917: 360 (diagnosis); Wheeler, W.M. 1922a: 886 (Afrotropical catalogue); Emery, 1924: 224 (diagnosis, catalogue); Chapman & Capco, 1951: 111 (Asia checklist); Baroni Urbani, 1975a: 410 (Oriental species revision, key); Bolton, 1981a: 61 (diagnosis, Afrotropical species revision, key); Taylor & Brown, D.R. 1985: 55 (Australia catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 83 (catalogue); Shattuck, 1999: 128 (Australia synopsis).

Genus CYPHOIDRIS

Cyphoidris Weber, 1952: 26. Type-species: *Cyphoidris spinosa*, by original designation.

Taxonomic history

Cyphoidris in *Myrmicinae*, *Pheidolini*: Hölldobler & Wilson, 1990: 16.

Cyphoidris in Myrmicinae, Stenammini: Bolton, 1994: 106.

Cyphoidris as junior synonym of *Lordomyrma*: Brown, 1973b: 179 [provisional].

Cyphoidris as genus: Bolton, 1981b: 257; Bolton, 1994: 82.

Genus references

Bolton, 1981b: 257 (diagnosis, all species revision, key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 167 (catalogue).

Genus DACATRIA

Dacatria Rigato, 1994b: 155. Type-species: *Dacatria templaris*, by original designation.

Taxonomic history

Dacatria in Myrmicinae, Proattini: Rigato, 1994b: 161.

Dacatria in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995b: 168.

Genus DACETINOPS

Dacatinops Brown & Wilson, 1957a: 1. Type-species: *Dacatinops cibdelus*, by original designation.

Taxonomic history

Dacatinops in Myrmicinae, Leptothoracini: Wheeler, G.C. & Wheeler, J. 1985: 257.

Dacatinops incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 80.

Dacatinops in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995a: 1049; Bolton, 1995b: 168.

Genus references

Taylor, 1985: 49 (all species revision, key).

Genus DICROASPIS

Dicroaspis Emery, 1908b: 184. Type-species: *Dicroaspis cryptocera*, by monotypy.

Taxonomic history

Dicroaspis in Myrmicinae, Meranoplini: Forel, 1917: 244; Arnold, 1917: 362; Wheeler, W.M. 1922a: 664; Emery, 1924: 225; Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 7 (in key); Donisthorpe, 1943c: 639.

Dicroaspis in Myrmicinae, Calyptomyrmecini: Dlussky & Fedoseeva, 1988: 80.

Dicroaspis in Myrmicinae, Stenammini: Bolton, 1994: 106.

Dicroaspis as subgenus of *Calyptomyrmex*: Emery, 1915e: 15; Forel, 1917: 244; Wheeler, W.M. 1922a: 887; Donisthorpe, 1943c: 639; Emery, 1924: 225.

Dicroaspis as junior synonym of *Calyptomyrmex*: Brown, 1973b: 180 [provisional].

Dicroaspis as genus: Emery, 1908b: 184; Arnold, 1917: 362; Wheeler, W.M. 1922a: 664; Wheeler, W.M. 1935a: 7; Bolton, 1981a: 56.

Junior synonym of DICROASPIS

Geognomicus Menozzi, 1924: 220. Type-species: *Geognomicus wheeleri* (junior synonym of *Dicroaspis cryptocera*), by original designation.

Taxonomic history

Geognomicus in Myrmicinae, Meranoplini: Menozzi, 1924: 220; Donisthorpe, 1943c: 647; Wheeler, W.M. 1935a: 7 (in key).

Geognomicus as junior synonym of *Dicroaspis*: Bolton, 1981a: 56; Bolton, 1994: 106.

Geognomicus as genus: Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 81 (anachronism).

Genus references

Arnold, 1917: 362 (diagnosis); Wheeler, W.M. 1922a: 887 (catalogue); Emery, 1924: 225 (diagnosis, catalogue); Bolton, 1981a: 56 (diagnosis, all species revision, key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 171 (catalogue).

Genus INDOMYRMA

Indomyrma Brown, 1986: 37. Type-species: *Indomyrma dasypyx*, by original designation.

Taxonomic history

Indomyrma in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995a: 1050; Bolton, 1995b: 217.

Genus LACHNOMYRMEX

Lachnomyrme Wheeler, W.M. 1910a: 263. Type-species: *Lachnomyrme scrobiculatus*, by monotypy.

Taxonomic history

Lachnomyrme in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 269; all subsequent authors to the following.

Lachnomyrme in Myrmicinae, Myrmicini: Kusnezov, 1964: 57.

Lachnomyrme in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16.

Lachnomyrme in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995a: 1050; Bolton, 1995b: 220.

Genus references

Emery, 1924: 269 (diagnosis, catalogue); Smith, M.R. 1944d: 226 (all species key); Weber, 1950b: 3 (all species key); Kempf, 1972a: 128 (catalogue); Fernández & Baena, 1997: 112 (all species key).

Genus LASIOMYRMA

Lasiomyrma Terayama & Yamane, 2000: 523. Type-species: *Lasiomyrma gedensis*, by original designation.

Taxonomic history

Lasiomyrma in Myrmicinae, Stenammini: Terayama & Yamane, 2000: 523.

Genus references

Terayama & Yamane, 2000: 527 (all species key).

Genus LORDOMYRMA

Lordomyrma Emery, 1897b: 591. Type-species: *Lordomyrma furcifera*, by subsequent designation of Wheeler, W.M. 1911b: 166.

Taxonomic history

[Type-species not *Podomyrma caledonica*, incorrect subsequent designation by Wheeler, W.M. 1919b: 98.]

Lordomyrma in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Lordomyrma in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 238 [subtribe Podomyrmini]; all subsequent authors to those below; Kugler, C. 1994: 25.

Lordomyrma in Myrmicinae, Pheidolini: Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16.

Lordomyrma in Myrmicinae, Stenammini: Bolton, 1994: 106.

Junior synonyms of LORDOMYRMA

Promeranoplus Emery, 1914c: 412. Type-species: *Promeranoplus rouxi*, by monotypy.

Taxonomic history

Promeranoplus in Myrmicinae, Meranoplini: Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 225; Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 6 (in key); all subsequent authors to the following.

Promeranoplus in Myrmicinae, Calyptomyrmecini: Dlussky & Fedoseeva, 1988: 80.

Promeranoplus as junior synonym of *Lordomyrma*: Hölldobler & Wilson, 1990: 14; Bolton, 1994: 106.

Prodicroaspis Emery, 1914c: 414. Type-species: *Prodicroaspis sarasini*, by monotypy.

Taxonomic history

Prodicroaspis in Myrmicinae, Meranoplini: Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 664; Emery, 1924: 223; Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 6 (in key); all subsequent authors to the following.

Prodicroaspis in Myrmicinae, Calyptomyrmecini: Dlussky & Fedoseeva, 1988: 80.

Prodicroaspis as junior synonym of *Lordomyrma*: Hölldobler & Wilson, 1990: 14; Bolton, 1994: 106.

Genus references

Wheeler, W.M. 1919b: 98 (diagnosis, all species key); Emery, 1924: 223 (*Prodicroaspis* diagnosis, catalogue); Emery, 1924: 223 (*Promeranoplus* diagnosis, catalogue); Emery, 1924: 238 (diagnosis, catalogue); Donisthorpe, 1941a: 37 (all species key); Chapman & Capco, 1951: 116 (Asia checklist); Taylor & Brown, D.R. 1985: 65 (Australia catalogue); Taylor, 1987a: 37, 65, 66 (Australia, New Caledonia checklists); Bolton, 1995a: 1050 (census); Bolton, 1995b: 248 (catalogue); Kugler, C. 1997: 193 (sting structure); Shattuck, 1999: 137 (Australia synopses).

Genus PROATTA

Proatta Forel, 1912g: 768. Type-species: *Proatta butteli*, by monotypy.

Taxonomic history

[*Proatta* also described as new by Forel, 1913d: 84.]

Proatta in Myrmicinae, Proattini: Forel, 1917: 246; Wheeler, W.M. 1922a: 668; Wheeler, G.C. & Wheeler, J. 1985: 257.

Proatta in Myrmicinae, Attini: Emery, 1913b: 251; Emery, 1914a: 42; Emery, 1924: 333 [subtribe Proattini]; Donisthorpe, 1943c: 686; Chapman & Capco, 1951: 83.

Proatta in Myrmicinae, Pheidolini: Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16.

Proatta in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995a: 1052; Bolton, 1995b: 366.

Genus references

Emery, 1924: 333 (diagnosis, catalogue); Moffett, 1987: 444 (review of genus).

Genus ROGERIA

Rogeria Emery, 1894a: 188. Type-species: *Rogeria curvipubens*, by subsequent designation of Wheeler, W.M. 1911b: 172.

Taxonomic history

Rogeria in Myrmicinae, Myrmicini: Emery, 1895e: 769; Forel, 1899: 53; Wheeler, W.M. 1910d: 139; Kusnezov, 1958a: 44; Kusnezov, 1964: 57.

Rogeria in Myrmicinae, Tetramoriini: Ashmead, 1905b: 383.

Rogeria in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 266; Donisthorpe, 1943d: 724; Chapman & Capco, 1951: 111; Kempf, 1972a: 227; Smith, D.R. 1979: 1391; Dlussky & Fedoseeva, 1988: 79; Jaffe, 1993: 11; Kugler, C. 1994: 24.

Rogeria in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16.

Rogeria in Myrmicinae, Stenammini: Bolton, 1994: 106.

Junior synonym of ROGERIA

Irogera Emery, 1915f: 191 [as subgenus of *Rogeria*]. Type-species: *Rogeria procera*, by original designation.

Taxonomic history

- Irogera* in Myrmicinae, Leptothoracini: Forel, 1917: 245; Emery, 1924: 267; Donisthorpe, 1943c: 653.
Irogera as subgenus of *Rogeria*: Emery, 1915f: 191; Forel, 1917: 245; Emery, 1924: 267; Wheeler, W.M. 1922a: 677; Donisthorpe, 1943c: 653.
Irogera as genus: Brown, 1953d: 4 (in text); Kempf, 1961c: 436; Kempf, 1964b: 66.
Irogera as junior synonym of *Rogeria*: Kempf, 1965: 185; Kugler, C. 1994: 23.

Genus references

Mann, 1921: 456 (Melanesia species key); Wheeler, W.M. 1922a: 677 (subgenera key); Emery, 1924: 266 (diagnosis, catalogue); Chapman & Capco, 1951: 111 (Asia checklist); Kempf, 1963a: 195 (Neotropical species key); Kempf, 1964b: 66 (*Irogera* species key); Kempf, 1972a: 227 (Neotropical catalogue); Smith, D.R. 1979: 1391 (North America catalogue); Taylor, 1987a: 72 (New Caledonia checklist); Brandão, 1991: 377 (catalogue); Kugler, C. 1994: 17 (diagnosis, all species revision, key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 381 (catalogue).

Genus *ROSTROMYRMEX*

Rostromyrmex Rosciszewski, 1994: 160. Type-species: *Rostromyrmex pasohensis*, by original designation.

Taxonomic history

Rostromyrmex in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995b: 382.

Genus *STENAMMA*

Stenamma Westwood, 1839: 219. Type-species: *Stenamma westwoodii*, by monotypy.

Taxonomic history

Stenamma in Myrmicidae, Myrmicinae: Emery, 1877a: 81.
Stenamma in Myrmicinae: Mayr, 1861: 55 [Myrmicidae]; Mayr, 1865: 23 [Myrmicidae]; Emery & Forel, 1879: 456 [Myrmicidae]; Dalla Torre, 1893: 121.
Stenamma in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1915e: 53; Kempf, 1972a: 242 (anachronism).
Stenamma in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 52 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; Karavaiev, 1934: 96; Kugler, C. 1994: 25.
Stenamma in Myrmicinae, Stenammini: Ashmead, 1905b: 383; Bolton, 1994: 106.

Junior synonyms of *STENAMMA*

Asemorhoptrum Mayr, 1861: 76. Type-species: *Myrmica lippula*, by monotypy.

Taxonomic history

Asemorhoptrum in Myrmicinae: Mayr, 1865: 20 [Myrmicidae]; Emery, 1877a: 81 [Myrmicidae]; Emery & Forel, 1879: 460; [Myrmicidae].
Asemorhoptrum as junior synonym of *Stenamma*: André, 1883a: 310; all subsequent authors except the following.

[*Asemorhoptrum* as junior synonym of *Proatta*: Snelling, 1981: 395 (error).]

Theryella Santschi, 1921b: 68. Type-species: *Theryella myops* (provisional junior synonym of *Stenamma punctiventre*), by monotypy.

Taxonomic history

Theryella as junior synonym of *Stenamma*: Santschi, 1923a: 136; all subsequent authors except the following.

[*Theryella* as junior synonym of *Proatta*: Snelling, 1981: 395, (error).]

Genus references

Roger, 1863b: 25, 27 (catalogue); Mayr, 1863: 395, 454 (catalogue); Mayr, 1865: 20, 23 (*Asemorhoptrum*, *Stenamma* diagnoses); André, 1883a: 311 (Europe & Algeria species key); Cresson, 1887: 261 (U.S.A. catalogue); Dalla Torre, 1893: 121 (catalogue); Forel, 1903: 693 (India & Sri Lanka species key); Emery, 1908c: 306 (Palearctic species key); Emery, 1916b: 127 (Italy species key); Emery, 1921b: 52 (diagnosis, catalogue); Arnol'di, 1928a: 215 (former U.S.S.R. species key); Arnol'di, 1933b: 599 (Russia species key); Buren, 1944: 284 (U.S.A., Iowa species key); Creighton, 1950a: 135 (North America species key); Chapman & Capco, 1951: 153 (Asia checklist); Smith, M.R. 1957: 141 (U.S.A. species key); Yasumatsu & Murakami, 1960: 28 (Japan species key); Smith, M.R. 1962: 38 (Mexico and Central America species key); Gregg, 1963: 347 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 120 (U.S.A., North Dakota species key); Bernard, 1967: 126 (diagnosis, Western Europe species key); Kempf, 1972a: 242 (Neotropical catalogue); Snelling, 1973b: 5 (Western U.S.A. species key); Arnol'di, 1975: 1826 (former U.S.S.R. species key); Kutter, 1977b: 74 (Switzerland species key); Arnol'di & Dlussky, 1978: 535 (former European U.S.S.R. species key); Collingwood, 1978: 80 (Iberian Peninsula species key); Smith, D.R. 1979: 1357 (North America, catalogue); Allred, 1982: 443 (U.S.A., Utah species key); Gösswald, 1985: 297 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 33 (U.S.A., Nevada species key); Agosti & Collingwood, 1987: 268 (Balkans species key); Kupyanskaya, 1990: 116 (Far Eastern Russia species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 14 (Japan species key); Arakelian, 1994: 29 (Armenia species key); Kupyanskaya, 1995: 344 (Far Eastern Russia species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 393 (catalogue); Seifert, 1996: 155 (Central Europe species key); Skinner & Allen, 1996: 44 (Britain species key); Fernández, Baena & Palacio, 1996: 9 (Colombia species key); DuBois, 1998: 215 (Palearctic & Oriental species revision, keys).

Genus **TETHEAMYRMA**

Tetheamyрма Bolton, 1991: 9. Type-species: *Tetheamyрма subspongia*, by original designation.

Taxonomic history

Tetheamyрма in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995a: 1053; Bolton, 1995b: 403.

Genus **VOLLENHOVIA** tribal transfer

Vollenhovia Mayr, 1865: 21. Type-species: *Vollenhovia punctatostriata*, by monotypy.

Taxonomic history

Vollenhovia in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Vollenhovia in Myrmicinae: Mayr, 1865: 21 [Myrmicidae] Dalla Torre, 1893: 61.

Vollenhovia in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139; Wheeler, W.M. 1915e: 51.

Vollenhovia in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Vollenhovia in Myrmicinae, Myrmecini: Emery, 1912b: 105.

Vollenhovia in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini] Forel, 1917: 242; Emery, 1922c: 163; Wheeler, W.M. 1922a: 662; all subsequent authors to the following.

Vollenhovia incertae sedis in Myrmicinae: Ettershank, 1966: 81; Dlussky & Fedoseeva, 1988: 81.

Vollenhovia in Myrmicinae, Metaponini: Hölldobler & Wilson, 1990: 16; Bolton, 1994: 105.

Junior synonyms of **VOLLENHOVIA**

Vollenhovenia Dalla Torre, 1893: 61, unjustified subsequent emendation of *Vollenhovia*.

Taxonomic history

Vollenhovenia as junior synonym of *Vollenhovia*: Forel, 1893a: 166; Emery, 1922c: 163.

**Propodomyrma* Wheeler, W.M. 1910d: 163 (by indication). Type-species: **Propodomyrma samlandica* (junior synonym of **Vollenhovia beyrichi*), by monotypy.

Taxonomic history

[**Propodomyrma* Wheeler, W.M. 1908b: 413, *nomen nudum*.]

**Propodomyrma* as junior synonym of *Vollenhovia*: Wheeler, W.M. 1915e: 51; Emery, 1922c: 163.

Heteromyrmex Wheeler, W.M. 1920: 53. Type-species: *Vollenhovia rufiventris*, by original designation.

Taxonomic history

Heteromyrmex in Myrmicinae, Solenopsidini: Wheeler, W.M. 1922a: 662; Donisthorpe, 1943c: 650.

Heteromyrmex as junior synonym of *Vollenhovia*: Ettershank, 1966: 146.

Aratromyrma Stitz, 1938: 105. Type-species: *Aratromyrma luctuosus*, by subsequent designation of Donisthorpe, 1943c: 625.

Taxonomic history

Aratromyrma in Myrmicinae, Myrmecini: Donisthorpe, 1943c: 625.

Aratromyrma in Myrmicinae, Pheidolini: Chapman & Capco, 1951: 135.

Aratromyrma as junior synonym of *Vollenhovia*: Baroni Urbani, 1980: 96.

Dyomorium Donisthorpe, 1947b: 191. Type-species: *Dyomorium ireneum*, by original designation.

Taxonomic history

Dyomorium in Myrmicinae, Tetramoriini: Donisthorpe, 1947b: 191.

Dyomorium as junior synonym of *Vollenhovia*: Ettershank, 1966: 146.

Dorothea Donisthorpe, 1948b: 65. Type-species: *Dorothea novobritannae*, by monotypy.

Taxonomic history

Dorothea as junior synonym of *Vollenhovia*: Ettershank, 1966: 146.

Genus references

Mayr, 1867a: 94 (diagnosis); Dalla Torre, 1893: 61 (catalogue); Bingham, 1903: 213 (diagnosis); Emery, 1922c: 163 (diagnosis, catalogue); Wheeler, W.M. 1922a: 1026 (Malagasy catalogue); Chapman & Capco, 1951: 135, 169, 174 (Asia *Aratromyrma*, *Vollenhovia*, *Dyomorium* checklists); Ettershank, 1966: 146 (diagnosis, review of genus, checklist); Taylor & Brown, D.R. 1985: 92 (Australia catalogue); Taylor, 1987a: 80 (Australia, New Caledonia checklist); Taylor, 1991b: 612 (Australia species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 48 (Japan species key); Bolton, 1995a: 1053 (census); Bolton, 1995b: 422 (catalogue); Wu, J. & Wang, 1995: 106 (China species key); Terayama & Kinomura, 1997: 1 (Japan species key); Shattuck, 1999: 171 (Australia synopsis).

Genera *incertae sedis* in StenamminiGenus **ADELOMYRMEX**

Adelomyrmex Emery, 1897b: 590. Type-species: *Adelomyrmex biroi*, by monotypy.

Taxonomic history

Adelomyrmex in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 268; Donisthorpe, 1943c: 620; Chapman & Capco, 1951: 110; Kempf, 1972a: 18; Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 79; Jaffe, 1993: 11.

Adelomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383; Bolton, 1994: 106.

Junior synonyms of **ADELOMYRMEX**

Apsychomyrmex Wheeler, W.M. 1910a: 261. Type-species: *Apsychomyrmex myops*, by monotypy.

Taxonomic history

Apsychomyrmex in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 268; Donisthorpe, 1943c: 624.

Apsychomyrmex as junior synonym of *Adelomyrmex*: Kempf, 1972a: 18.
Arctomyrmex Mann, 1921: 457 [as subgenus of *Adelomyrmex*]. Type-species: *Adelomyrmex (Arctomyrmex) hirsutus*, by original designation.

Taxonomic history

Arctomyrmex as junior synonym of *Adelomyrmex*: Brown, 1973b: 178 [provisional]; Bolton, 1994: 106.

Genus references

Emery, 1924: 268 (*Apsychomyrmex* & *Adelomyrmex* diagnoses, catalogues); Smith, M.R. 1947b: 469 (*Apsychomyrmex* species key); Kempf, 1972a: 18 (Neotropical catalogue); Brown, 1973b: 178 (checklist); Brandão, 1991: 324 (catalogue); Bolton, 1994: 106 (synopsis); Bolton, 1995a: 1047 (census); Bolton, 1995b: 58 (catalogue); Fernández & MacKay, 2003: 595 (*A. laevigatus* complex, key).

Genus *BARACIDRIS*

Baracidris Bolton, 1981b: 252. Type-species: *Baracidris meketra*, by original designation.

Taxonomic history

Baracidris in Myrmicinae, Stenammini?: Bolton, 1994: 106.

Genus references

Bolton, 1981b: 255 (species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue).

Genus **ILEMOMYRMEX*

**Ilemomyrmex* Wilson, 1985a: 2. Type-species: **Ilemomyrmex caecus*, by original designation.

Taxonomic history

**Ilemomyrmex incertae sedis* in Myrmicinae: Wilson, 1985a: 2.

**Ilemomyrmex* in Myrmicinae, Calyptomyrmecini: Dlussky & Fedoseeva, 1988: 80.

**Ilemomyrmex* in Myrmicinae, Stenammini: Bolton, 1994: 106; Bolton, 1995b: 217.

Tribe SOLENOPSIDINI

Solenopsidis Forel, 1893a: 164. Type-genus: *Solenopsis*.

Taxonomic history

Solenopsidini as tribe of Myrmicinae: Forel, 1893a: 164 [*Solenopsidis*]; Emery, 1895e: 769 [*Solenopsidii*]; Forel, 1899: 79 [*Solenopsidii*]; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140 [*Solenopsidii*]; Emery, 1914a: 37; Wheeler, W.M. 1915e: 46 [*Solenopsidiini*]; Arnold, 1916: 203; Forel, 1917: 242; Emery, 1922c: 158; Wheeler, W.M. 1922a: 670; all subsequent authors. [*Taxonomy*, p. 59.]

Junior synonyms of SOLENOPSIDINI

Pheidologetini Emery, 1914a: 38 (diagnosis in key). Type-genus: *Pheidologeton*. Syn. n.

Taxonomic history

Pheidologetini as junior synonym of *Solenopsidini*: Wheeler, W.M. 1922a: 659.

Pheidologetini as tribe of Myrmicinae: Emery, 1914a: 38; Arnold, 1916: 248; Forel, 1917: 243; Emery, 1922c: 206; Emery, 1924: 207; Bolton, 1992: 38 [*Pheidologetonini*]; Bolton, 1994: 106 [*Pheidologetonini*].

Monomoriini Emery, 1914a: 41. Type-genus: *Monomorium*.

Taxonomic history

Monomoriini as subtribe of *Solenopsidini*: Emery, 1914a: 41; Arnold, 1916: 203; Forel, 1917: 242; Emery, 1922c: 162.

Monomoriini as tribe of Myrmicinae: Dlussky & Fedoseeva, 1988: 80.

Monomoriini as junior synonym of *Solenopsidini*: Bolton, 1994: 106.

Monomoriini Wheeler, W.M. 1915e: 45. Type-genus: *Monomorium*.

Taxonomic history

Monomoriini as tribe of Myrmicinae: Wheeler, W.M. 1915e: 45.

Monomoriini as junior synonym of *Solenopsidini*: Bolton, 1995b: 13.

**Hypopomyrmiciti* Brown, 1952c: 10 (footnote). Type-genus: **Hypopomyrmex*. Syn. n.

Taxonomic history

**Hypopomyrmiciti* as subtribe of *Dacetini*: Brown, 1952c: 10.

**Hypopomyrmiciti* as junior synonym of *Pheidologetini*: Brown & Carpenter, 1979: 422 (by implication); Bolton, 1995b: 12.

Megalomyrmecini Dlussky & Fedoseeva: 1988: 80. Type-genus: *Megalomyrmex*.

Taxonomic history

Megalomyrmecini as tribe of Myrmicinae: Dlussky & Fedoseeva: 1988: 80.

Megalomyrmecini as junior synonym of *Solenopsidini*: Bolton, 1994: 106.

Genera: *Adlerzia*, *Afroxydridis*, *Allomerus*, *Anillomyrma*, *Bondroitia*, *Carebara*, *Carebarella*, *Diplomorium*, *Epelysidris*, *Machomyrma*, *Mayriella*, *Megalomyrmex*, *Monomorium*, *Nothidris*, *Oligomyrmex*, *Oxyepocus*, *Paedalgus*, *Phacota*, *Pheidologeton*, *Solenopsis*, *Tranopelta*.

Genera (extinct) *incertae sedis*: **Hypopomyrmex*, **Oxydridis*.

Tribe references

Emery, 1895e: 769 (diagnosis); Wheeler, W.M. 1910d: 140 (diagnosis); Emery, 1914a: 37, 38, 41 (diagnoses (in key), synoptic classification); Forel, 1917: 242 (synoptic classification); Emery, 1922c: 158, 206 (*Solenopsidini* diagnosis, genera key, catalogue; *Pheidologetini* diagnosis); Wheeler, W.M. 1922a: 670 (genera key); Wheeler, W.M. 1922a: 862, 1026 (Afrotropical, Malagasy catalogues); Emery, 1924: 207 (*Pheidologetini* genera key, catalogue); Kusnezov, 1957a: 267 (Neotropical genera key); Ettershank, 1966:

73 (review of Solenopsidini, genera diagnoses); Ettershank, 1966: 115 (*Pheidologeton* group review); Wheeler, G.C. & Wheeler, J. 1976: 55 (larvae, review & synthesis); Kugler, C. 1978a: 455 (sting structure); Kugler, C. 1986: 221 (*Pheidologeton* group sting structure); Bolton, 1987: 263 (diagnosis, review of tribe, genera key); Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Brandão, 1991: 390 (Neotropical, synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 14, 15 (catalogue).

Genera of Solenopsidini

Genus *ADLERZIA* tribal transfer

Adlerzia Forel, 1902c: 445 [as subgenus of *Monomorium*]. Type-species: *Monomorium (Adlerzia) froggatti*, by monotypy.

Taxonomic history

Adlerzia in Myrmicinae, Solenopsidini: Forel, 1917: 242 [subtribe Monomoriini]; Emery, 1922c: 182; all subsequent authors to the following.

Adlerzia in Myrmicinae, Pheidolini: Brown, 1952e: 176; Wheeler, G.C. & Wheeler, J. 1985: 257; Hölldobler & Wilson, 1990: 16.

Adlerzia incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 80.

Adlerzia in Myrmicinae, Pheidologetini: Bolton, 1994: 106 [Pheidologetonini].

Adlerzia as subgenus of *Monomorium*: Forel, 1902c: 445; Wheeler, W.M. 1910d: 139; Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 182; Wheeler, W.M. 1922a: 676; Donisthorpe, 1943c: 620.

Adlerzia as genus: Brown, 1952e: 176; Taylor & Brown, D.R. 1985: 53; Taylor, 1987a: 5; Bolton, 1995a: 1047; Bolton, 1995b: 58.

Junior synonym of *ADLERZIA*

Stenothorax McAreavey, 1949: 3. Type-species: *Stenothorax katerinae* (junior synonym of *Adlerzia froggatti*), by original designation.

Taxonomic history

Stenothorax as junior synonym of *Adlerzia*: Brown, 1952a: 110.

Genus references

Emery, 1922c: 182 (diagnosis, catalogue); Brown, 1952e: 173 (review of genus); Taylor & Brown, D.R. 1985: 53 (Australia catalogue); Taylor, 1987a: 5 (Australia checklist); Bolton, 1995b: 58 (catalogue); Shattuck, 1999: 122 (Australia synopsis).

Genus *AFROXYIDRIS* tribal transfer

Afroxyidris Belshaw & Bolton, 1994: 631. Type-species: *Afroxyidris crigensis*, by original designation.

Taxonomic history

Afroxyidris in Myrmicinae, Pheidologetonini: Belshaw & Bolton, 1994: 632; Bolton, 1994: 106.

Genus *ALLOMERUS*

Allomerus Mayr, 1878: 873. Type-species: *Allomerus decemarticulatus*, by subsequent designation of Wheeler, W.M. 1911b: 158.

Taxonomic history

Allomerus in Myrmicinae: Dalla Torre, 1893: 78.

Allomerus in Myrmicinae, Myrmicini: Forel, 1895a: 125; Emery, 1895e: 769.

Allomerus in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Allomerus in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Allomerus in Myrmicinae, Megalomyrmecini: Dlussky & Fedoseeva, 1988: 80.

Allomerus in Myrmicinae, Solenopsidini: Wheeler, W.M. 1910d: 140; Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 188; Wheeler, W.M. 1922a: 663; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Genus references

Dalla Torre, 1893: 78 (catalogue); Emery, 1922c: 188 (diagnosis, catalogue); Ettershank, 1966: 111 (diagnosis, review of genus, checklist); Kempf, 1972a: 18 (catalogue); Bolton, 1987: 282 (review of genus); Brandão, 1991: 324 (catalogue); Bolton, 1995a: 1047 (census); Bolton, 1995b: 61 (catalogue).

Genus *ANILLOMYRMA*

Anillomyrma Emery, 1913b: 261 [as subgenus of *Monomorium*]. Type-species: *Monomorium decamerum*, by monotypy.

Taxonomic history

Anillomyrma in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Anillomyrma in Myrmicinae, Monomoriini: Dlussky & Fedoseeva, 1988: 80.

Anillomyrma in Myrmicinae, Solenopsidini: Forel, 1917: 242 [subtribe Monomoriini]; Emery, 1922c: 184; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106.

Anillomyrma as subgenus of *Monomorium*: Emery, 1913b: 261; Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 184; Wheeler, W.M. 1922a: 675, 686.

Anillomyrma as genus: Ettershank, 1966: 97; Bolton, 1987: 273.

Genus references

Emery, 1922c: 184 (*Monomorium* (*Anillomyrma*) diagnosis, catalogue); Ettershank, 1966: 97 (diagnosis, review of genus, checklist); Bolton, 1987: 273 (diagnosis, all species revision, key); Bolton, 1995a: 1047 (census); Bolton, 1995b: 63 (catalogue); Shattuck, 1999: 124 (Australia synopsis).

Genus BONDROITIA

Bondroitia Forel, 1911a: 300 (footnote) [as subgenus of *Monomorium*]. Type-species: *Monomorium* (*Martia*) *coecum* (junior synonym of *Bondroitia lujae*), by monotypy.

Taxonomic history

[*Bondroitia* also described as new, but as subgenus of *Diplomorium*, by Forel, 1911b: 398; see discussion in Bolton, 1987: 275.]

Bondroitia in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Bondroitia in Myrmicinae, Solenopsidini: Forel, 1917: 243; Emery, 1922c: 194; Wheeler, W.M. 1922a: 663; all subsequent authors; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106.

Bondroitia as subgenus of *Monomorium*: Forel, 1911a: 300.

Bondroitia as subgenus of *Diplomorium*: Forel, 1911b: 398; Forel, 1917: 243; Emery, 1922c: 194.

Bondroitia as junior synonym of *Diplomorium*: Ettershank, 1966: 98.

Bondroitia as genus: Forel, 1915c: 38; Wheeler, W.M. 1922a: 663, 683; Bolton, 1987: 275

Genus references

Emery, 1922c: 194 (diagnosis, catalogue); Wheeler, W.M. 1922a: 877 (catalogue); Bolton, 1987: 275 (diagnosis, review of genus, all species); Bolton, 1995a: 1048 (census); Bolton, 1995b: 80 (catalogue).

Genus CAREBARA tribal transfer

Carebara Westwood, 1840b: 86. Type-species: *Carebara lignata*, by monotypy.

Taxonomic history

Carebara in Poneridae, Attidae: Smith, F. 1858b: 178.

Carebara in Myrmicinae: Mayr, 1865: 23 [Myrmicidae]; Smith, F. 1871: 334 [Myrmicidae]; Dalla Torre, 1893: 74.

Carebara in Myrmicinae, Pheidolini: Emery, 1877a: 81 [Myrmicidae, Pheidolidae].

Carebara in Myrmicinae, Myrmicariini: Ashmead, 1905b: 383.

Carebara in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1922a: 663; Kusnezov, 1964: 61; Kempf, 1972a: 74; Jaffe, 1993: 10.

Carebara in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Carebara in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Arnold, 1916: 248; Forel, 1917: 244; Emery, 1924: 219; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106 [Pheidologetonini].

Genus references

Smith, F. 1858b: 178 (diagnosis); Roger, 1863b: 32 (catalogue); Mayr, 1863: 402 (catalogue); Mayr, 1865: 23 (diagnosis); Mayr, 1867a: 106 (diagnosis); Dalla Torre, 1893: 74 (catalogue); Bingham, 1903: 150 (diagnosis); Santschi, 1914b: 363 (Afrotropical species key); Arnold, 1916: 248 (diagnosis); Wheeler, W.M. 1922a: 168, 172, 883 (diagnosis, Afrotropical species key, Afrotropical catalogue); Emery, 1924: 219 (diagnosis, catalogue); Kempf, 1972a: 74 (Neotropical catalogue); Chapman & Capco, 1951: 155 (Asia checklist); Ettershank, 1966: 125 (diagnosis, review of genus, checklist); Bolton, 1995a: 1048 (census); Bolton, 1995b: 133 (catalogue).

Genus CAREBARELLA

Carebarella Emery, 1906c: 137. Type-species: *Carebarella bicolor*, by monotypy.

Taxonomic history

Carebarella in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Carebarella in Myrmicinae, Megalomyrmecini: Dlussky & Fedoseeva, 1988: 80.

Carebarella in Myrmicinae, Solenopsidini: Wheeler, W.M. 1910d: 140; Emery, 1914a: 41; Forel, 1917: 243; Emery, 1922c: 193; Wheeler, W.M. 1922a: 663; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Junior synonym of CAREBARELLA

Carebarelloides Borgmeier, 1937: 236 [as subgenus of *Carebarella*]. Type-species: *Carebarella* (*Carebarelloides*) *condei*, by original designation.

Taxonomic history

Carebarelloides as junior synonym of *Carebarella*: Ettershank, 1966: 113.

Genus references

Emery, 1922c: 193 (diagnosis, catalogue); Ettershank, 1966: 113 (diagnosis, review of genus, checklist); Kempf, 1972a: 74 (Neotropical catalogue); Bolton, 1987: 286 (genus, notes); Brandão, 1991: 336 (catalogue); Bolton, 1995a: 1048 (census); Bolton, 1995b: 134 (catalogue).

Genus DIPLOMORIUM

Diplomorium Mayr, 1901: 16. Type-species: *Diplomorium longipenne*, by monotypy.

Taxonomic history

Diplomorium in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Diplomorium in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Diplomorium in Myrmicinae, Monomoriini: Dlussky & Fedoseeva, 1988: 80.

Diplomorium in Myrmicinae, Solenopsidini: Wheeler, W.M. 1910d: 141; Emery, 1914a: 41; Arnold, 1916: 240; Forel, 1917: 243; Emery, 1922c: 194; Wheeler, W.M. 1922a: 663; all subsequent authors except for the above; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106.

Genus references

Arnold, 1916: 240 (diagnosis); Emery, 1922c: 194 (diagnosis, catalogue); Wheeler, W.M. 1922a: 877 (catalogue); Ettershank, 1966: 98 (diagnosis, review of genus, checklist); Bolton, 1987: 278 (diagnosis, revision of genus, species); Bolton, 1995a: 1049 (census); Bolton, 1995b: 171 (catalogue).

Genus *EPELYSIDRIS*

Epelysidris Bolton, 1987: 279. Type-species: *Epelysidris brocha*, by original designation.

Taxonomic history

Epelysidris in Myrmicinae, *Solenopsis* genus group: Bolton, 1987: 271.

Epelysidris in Myrmicinae, Solenopsidini: Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106; Bolton, 1995a: 1049; Bolton, 1995b: 188.

Genus *MACHOMYRMA* tribal transfer

Machomyrma Forel, 1895c: 425 [as subgenus of *Liomyrmex*]. Type-species: *Liomyrmex (Machomyrma) dispar*, by monotypy.

Taxonomic history

Machomyrma in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Machomyrma in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 76 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; subsequent authors to Hölldobler & Wilson, 1990: 16, except the following.

Machomyrma incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.

Machomyrma in Myrmicinae, Pheidologetini: Bolton, 1994: 106 [Pheidologetonini].

Machomyrma as subgenus of *Liomyrmex*: Forel, 1895c: 425.

Machomyrma as genus: Emery, 1896b: 184; Wheeler, W.M. 1910d: 139; Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 76; Wheeler, W.M. 1922a: 661; all subsequent authors.

Genus references

Emery, 1921b: 76 (diagnosis, catalogue); Taylor & Brown, D.R. 1985: 65 (Australia catalogue); Bolton, 1995a: 1050 (census); Bolton, 1995b: 248 (catalogue); Shattuck, 1999: 139 (Australia synopsis).

Genus *MAYRIELLA* tribal transfer

Mayriella Forel, 1902c: 452. Type-species: *Mayriella abstinens*, by monotypy.

Taxonomic history

Mayriella in Myrmicinae, Tetramoriini: Wheeler, W.M. 1910d: 141.

Mayriella in Myrmicinae, Meranoplini: Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 223; Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 6 (in key); Wheeler, W.M. 1935e: 151; all subsequent authors to the following.

Mayriella in Myrmicinae, Calyptomymecini: Dlussky & Fedoseeva, 1988: 80.

Mayriella in Myrmicinae, Stenammini?: Bolton, 1994: 106.

Genus references

Emery, 1924: 223 (diagnosis, catalogue); Wheeler, W.M. 1935e: 154 (all species key); Taylor & Brown, D.R. 1985: 65 (Australia catalogue); Taylor, 1987a: 37 (Australia, New Zealand checklist); Dlussky & Radchenko, 1990: 124 (all species key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 249 (catalogue); Kugler, C. 1997: 193 (sting structure); Shattuck, 1999: 140 (Australia synopsis).

Genus *MEGALOMYRMEX*

Megalomyrmex Forel, 1885: 371. Type-species: *Megalomyrmex leoninus*, by monotypy.

Taxonomic history

[Type-species not *Formica bituberculata*, unjustified subsequent designation by Wheeler, W.M. 1911b: 167.]

Megalomyrmex in Myrmicinae: Dalla Torre, 1893: 71.

Megalomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Forel, 1899: 57; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 139.

Megalomyrmex in Myrmicinae, Pheidolini: Kusnezov, 1952b: 10 (in key).

Megalomyrmex in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271; Brandão, 1980: 412.

Megalomyrmex in Myrmicinae, Megalomymecini: Dlussky & Fedoseeva, 1988: 80.

Megalomyrmex in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 189; Wheeler, W.M. 1922a: 663; Kusnezov, 1957a: 268; Kusnezov, 1962b: 160; Kusnezov, 1964: 61; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Junior synonyms of *MEGALOMYRMEX*

Wheelerimymex Mann, 1922: 29 [as subgenus of *Megalomyrmex*]. Type-species: *Megalomyrmex silvestrii*,

by original designation.

Taxonomic history

Wheelerimyrmex as junior synonym of *Megalomyrmex*: Ettershank, 1966: 101; Brandão, 1990: 415.
Cepobroticus Wheeler, W.M. 1925b: 168 [as subgenus of *Megalomyrmex*]. Type-species: *Megalomyrmex* (*Cepobroticus*) *symmetochus*, by monotypy.

Taxonomic history

Cepobroticus as junior synonym of *Megalomyrmex*: Ettershank, 1966: 101; Brandão, 1990: 415.

Genus references

Emery, 1890b: 47 (all species key); Dalla Torre, 1893: 71 (catalogue); Wheeler, W.M. 1909: 236 (all species key); Emery, 1922c: 189 (diagnosis, catalogue); Wheeler, W.M. 1925a: 32 (all species key); Ettershank, 1966: 101 (diagnosis, review of genus, checklist); Kempf, 1972a: 139 (catalogue); Bolton, 1987: 285 (genus); Brandão, 1990: 411 (diagnosis, all species revision, key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 249 (catalogue).

Genus *MONOMORIUM*

Monomorium Mayr, 1855: 452. Type-species: *Monomorium monomorium* (replacement name for *Monomorium minutum*, junior secondary homonym in *Monomorium*), by monotypy.

Taxonomic history

Monomorium in Myrmicidae, Myrmicinae: Emery, 1877a: 81.
Monomorium in Myrmicinae: Mayr, 1855: 452 [Myrmicidae]; Mayr, 1861: 71 [Myrmicidae]; Mayr, 1865: 22 [Myrmicidae]; Emery & Forel, 1879: 456 [Myrmicidae]; Dalla Torre, 1893: 65.
Monomorium in Myrmicinae, Myrmicini: Forel, 1895a: 124; Emery, 1895e: 769; Forel, 1899: 78; Wheeler, W.M. 1910d: 139.
Monomorium in Myrmicinae, Tetramoriini: Ashmead, 1905b: 383.
Monomorium in Myrmicinae, Monomoriini: Wheeler, W.M. 1915e: 45; Dlussky & Fedoseeva, 1988: 80.
Monomorium in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.
Monomorium in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Arnold, 1916: 203; Forel, 1917: 242; Emery, 1922c: 166; Wheeler, W.M. 1922a: 662; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Junior synonyms of *MONOMORIUM*

Trichomyrmex Mayr, 1865: 19. Type-species: *Trichomyrmex rogeri*, by monotypy.

Taxonomic history

Trichomyrmex in Myrmicidae, Myrmicinae: Emery, 1877a: 81.
Trichomyrmex in Myrmicinae: Mayr, 1865: 19 [Myrmicidae]; Dalla Torre, 1893: 72.
Trichomyrmex in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 140.
Trichomyrmex in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 185; Wheeler, W.M. 1922a: 662; Donisthorpe, 1943d: 733.
Trichomyrmex as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 296.

**Lampromyrmex* Mayr, 1868b: 93. Type-species: **Monomorium mayrianum* (replacement name for **Lampromyrmex gracillimus*, junior secondary homonym in *Monomorium*), by monotypy.

Taxonomic history

**Lampromyrmex* in Myrmicidae, Pheidolidae: Emery, 1877a: 81.
**Lampromyrmex* in Myrmicinae: Mayr, 1868b: 93 [Myrmicidae]; Dalla Torre, 1893: 78.
**Lampromyrmex* in Myrmicinae, Solenopsidini: Emery, 1922c: 183 [subtribe Monomoriini]; Donisthorpe, 1943c: 655.
**Lampromyrmex* as junior synonym of *Monomorium*: Wheeler, W.M. 1915e: 45.
**Lampromyrmex* as subgenus of *Monomorium*: Emery, 1922c: 183; Wheeler, W.M. 1922a: 676.
**Lampromyrmex* as junior synonym of *Monomorium*: Wheeler, W.M. 1915e: 45; Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 299.

Holcomyrmex Mayr, 1879: 671. Type-species: *Holcomyrmex scabriceps*, by subsequent designation of Bingham, 1903: 280.

Taxonomic history

[*Holcomyrmex* Smith, F. 1873: ix, *nomen nudum* attributed to Mayr.]
Holcomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383.
Holcomyrmex in Myrmicinae, Solenopsidini: Emery, 1922c: 181 [subtribe Monomoriini]; Donisthorpe, 1943c: 650.
Holcomyrmex as genus: Dalla Torre, 1893: 65; Forel, 1903: 692; Bingham, 1903: 280.
Holcomyrmex as subgenus of *Monomorium*: Wheeler, W.M. 1910d: 139; Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 181; Wheeler, W.M. 1922a: 676.
Holcomyrmex as junior synonym of *Monomorium*: Emery, 1908g: 667; Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 295.

Epoecus Emery, 1893a: cclxxvi. Type-species: *Epoecus pergandei*, by monotypy.

Taxonomic history

Epoecus in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.
Epoecus in Myrmicinae, Stenammini: Ashmead, 1905b: 383.
Epoecus in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Anergatini]; Forel, 1917: 243; Emery,

- 1922c: 204; Wheeler, W.M. 1922a: 663; Donisthorpe, 1943c: 643.
Epocus junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 287.
- Wheeleriella* Forel, 1907b: 145.
 Taxonomic history
 [Replacement name for *Wheeleria* Forel, 1905b: 171; junior homonym of *Wheeleria* Tutt, 1905: 37 (Lepidoptera).]
Wheeleriella in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.
Wheeleriella in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 186; Wheeler, W.M. 1922a: 662; Donisthorpe, 1943d: 735.
Wheeleriella junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 291.
- Homonym replaced by *Wheeleriella*
Wheeleria Forel, 1905b: 171. Type-species: *Wheeleria santschii*, by monotypy.
 Taxonomic history
 [Junior homonym of *Wheeleria* Tutt, 1905: 37 (Lepidoptera).]
Epixenus Emery, 1908e: 556. Type-species: *Epixenus andrei* (junior secondary homonym in *Monomorium*, replaced by *Monomorium advena*), by subsequent designation of Wheeler, W.M. 1911b: 163.
 Taxonomic history
Epixenus in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 184; Wheeler, W.M. 1922a: 662; Donisthorpe, 1943c: 643.
Epixenus as junior synonym of *Monomorium*: Brown & Wilson, 1957b: 244; Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 287; Tinaut & Ortiz, 1988: 167.
- Mitara* Emery, 1913b: 261 [as subgenus of *Monomorium*]. Type-species: *Monomorium laeve*, by original designation.
 Taxonomic history
Mitara in Myrmicinae, Solenopsidini: Arnold, 1916: 238; Forel, 1917: 242 [subtribe Monomoriini]; all subsequent authors.
Mitara as subgenus of *Monomorium*: Emery, 1913b: 261; Emery, 1915f: 190; Arnold, 1916: 238; Forel, 1917: 242.
Mitara as junior synonym of *Lampromyrmex*: Emery, 1922c: 183; Wheeler, W.M. 1922a: 162, 676.
Mitara as genus: Donisthorpe, 1943c: 662.
Mitara as junior synonym of *Monomorium*: Smith, D.R. 1979: 1381; Bolton, 1987: 299.
- Chelaner* Emery, 1914c: 410 [as subgenus of *Monomorium*]. Type-species: *Monomorium (Chelaner) forcipatum*, by subsequent designation of Emery, 1922c: 168.
 Taxonomic history
Chelaner in Myrmicinae, Solenopsidini: Forel, 1917: 242 [subtribe Monomoriini]; Emery, 1922c: 168; all subsequent authors except the following.
Chelaner in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81.
Chelaner in Myrmicinae, Monomoriini: Dlussky & Fedoseeva, 1988: 80.
Chelaner as subgenus of *Monomorium*: Emery, 1914c: 410; Forel, 1917: 242; Emery, 1922c: 168; Wheeler, W.M. 1922a: 676.
Chelaner as genus: Ettershank, 1966: 93; Taylor & Brown, D.R. 1985: 55; Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 80 (anachronism).
Chelaner (and its junior synonyms *Notomyrmex*, *Protholcomyrmex*, *Schizopelta*) as junior synonym of *Monomorium*: Bolton, 1987: 300; Heterick, 2001: 354.
- Notomyrmex* Emery, 1915f: 190 [as subgenus of *Monomorium*]. Type-species: *Atta antarctica*, by original designation.
 Taxonomic history
Notomyrmex as subgenus of *Monomorium*: Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 168; Wheeler, W.M. 1922a: 676; Kusnezov, 1956: 20.
Notomyrmex genus: Kusnezov, 1957a: 269 (in key); Kusnezov, 1960b: 343; Kusnezov, 1962b: 160; Kusnezov, 1964: 60.
Notomyrmex as junior synonym of *Chelaner*: Ettershank, 1966: 93.
- Parholcomyrmex* Emery, 1915f: 190 [as subgenus of *Monomorium*]. Type-species: *Myrmica gracillima* (junior synonym of *Monomorium destructor*), by original designation.
 Taxonomic history
Parholcomyrmex as subgenus of *Monomorium*: Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 179; Wheeler, W.M. 1922a: 676; subsequent authors to the following.
Parholcomyrmex as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 296.
 [Paraholcomyrmex Emery, 1915f: 191, Forel, 1917: 242, incorrect subsequent spellings.]
- Xeromyrmex* Emery, 1915f: 190 [as subgenus of *Monomorium*]. Type-species: *Formica salomonis*, by original designation.
 Taxonomic history
Xeromyrmex as subgenus of *Monomorium*: Forel, 1917: 242; Emery, 1922c: 175; Wheeler, W.M. 1922a: 677.
Xeromyrmex as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton,

1987: 294.

Syllophopsis Santschi, 1915b: 259 [as subgenus of *Monomorium*.] Type-species: *Monomorium modestum*, by monotypy.

Taxonomic history

Syllophopsis in Myrmicinae, Solenopsidini: Forel, 1917: 242 [subtribe Monomoriini]; Emery, 1922c: 175; all subsequent authors to the following.

Syllophopsis in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81.

Syllophopsis in Myrmicinae, Monomoriini: Dlussky & Fedoseeva, 1988: 80.

Syllophopsis as subgenus of *Monomorium*: Santschi, 1915b: 259; Forel, 1917: 242; Emery, 1922c: 175; Wheeler, W.M. 1922a: 676; Donisthorpe, 1943d: 729; Arnold, 1952a: 465.

Syllophopsis as genus: Santschi, 1921a: 119; Santschi, 1936a: 32; Ettershank, 1966: 100.

Syllophopsis as junior synonym of *Monomorium*: Bolton, 1987: 287.

[*Syllopsis* Santschi, 1921a: 120, incorrect subsequent spelling.]

Corynomymex Viehmeyer, 1916: 133 [as subgenus of *Monomorium*]. Type-species: *Monomorium (Corynomymex) hospitum*, by monotypy.

Taxonomic history

Corynomymex as subgenus of *Monomorium*: Viehmeyer, 1916: 133; Forel, 1917: 242; Emery, 1922c: 174.

Corynomymex as junior synonym of *Monomorium*: Ettershank, 1966: 82 [provisional]; Smith, D.R. 1979: 1381; Bolton, 1987: 287.

Isolcomymex Santschi, 1917: 296 [as subgenus of *Monomorium*]. Type-species: *Holcomymex santschii* (junior secondary homonym in *Monomorium*, replaced by *Monomorium santschianum*), by monotypy.

Taxonomic history

Isolcomymex as subgenus of *Monomorium*: Santschi, 1917: 296; Wheeler, W.M. 1922a: 676.

Isolcomymex as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 296.

[*Isholcomymex* Santschi, 1936a: 32, incorrect subsequent spelling.]

Paraphacota Santschi, 1919b: 90. Type-species: *Paraphacota surcoufi*, by monotypy.

Taxonomic history

[Type-species not *Phacota noualhieri*, unjustified subsequent designation by Santschi, 1927b: 245; repeated in Ettershank, 1966: 82 and Bolton, 1973a: 352.]

Paraphacota in Myrmicinae, Solenopsidini: Wheeler, W.M. 1922a: 663; Donisthorpe, 1943c: 681.

Paraphacota as junior synonym of *Monomorium*: Santschi, 1927b: 243; Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 293.

Equestrimessor Santschi, 1919b: 92 [as subgenus of *Monomorium*]. Type-species: *Holcomymex chobauti*, by subsequent designation of Donisthorpe, 1943c: 644.

Taxonomic history

Equestrimessor as subgenus of *Monomorium*: Santschi, 1919b: 92; Wheeler, W.M. 1922a: 677; Santschi, 1936a: 32.

Equestrimessor as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 287, 297.

[*Equessimessor* Santschi, 1936a: 32, incorrect subsequent spelling.]

Xenhyboma Santschi, 1919c: 405. Type-species: *Xenhyboma mystes* (junior synonym of *Monomorium medinae*), by monotypy.

Taxonomic history

Xenhyboma in Myrmicinae, Solenopsidini: Donisthorpe, 1943d: 736.

Xenhyboma as junior synonym of *Monomorium*: Ettershank, 1966: 82 [provisional]; Smith, D.R. 1979: 1381; Espadaler, 1982: 112; Bolton, 1987: 293.

Protholcomymex Wheeler, W.M. 1922a: 162 [as subgenus of *Monomorium*]. Type-species: *Monomorium rothsteini*, by original designation.

Taxonomic history

Protholcomymex as junior synonym of *Chelaner*: Ettershank, 1966: 93.

Ireneidris Donisthorpe, 1943a: 81. Type-species: *Ireneidris myops* (junior synonym of *Monomorium talpa*), by original designation.

Taxonomic history

Ireneidris in Myrmicinae, Solenopsidini [subtribe Monomoriini]: Donisthorpe, 1943a: 82.

Ireneidris as junior synonym of *Monomorium*: Ettershank, 1966: 82; Smith, D.R. 1979: 1381; Bolton, 1987: 298.

Schizopelta McAreavey, 1949: 14. Type-species: *Schizopelta falcata*, by original designation.

Taxonomic history

Schizopelta as junior synonym of *Chelaner*: Ettershank, 1966: 93.

Pharaophanes Bernard, 1967: 168 (attributed to Santschi) [as subgenus of *Monomorium*]. Type-species: *Monomorium pharaonis*, by monotypy. **Syn. n.**

Taxonomic history

[*Pharaophanes* Bernard, 1953: 238 (attributed to Santschi) [as subgenus of *Monomorium*]. Unavailable name; proposed without designation of type-species. Species included by Bernard (1953) are all referable to *Monomorium*: Bolton, 1987: 288; Bolton, 1995b: 42 (see also note in Baroni Urbani, 1971b: 90).]

Antichthonidris Snelling, 1975: 5. Type-species: *Monomorium denticulatum*, by original designation.

Taxonomic history

Antichthonidris in Myrmicinae, *Solenopsis* genus group: Bolton, 1987: 271.

Antichthonidris in Myrmicinae, Solenopsidini: Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Antichthonidris as junior synonym of *Monomorium*: Heterick, 2001: 361.

Genus references

Roger, 1863b: 31 (catalogue); Mayr, 1863: 429 (catalogue); Mayr, 1865: 19, 22 (*Trichomyrmex*, *Monomorium* diagnoses); Mayr, 1867a: 95 (diagnosis); Mayr, 1876: 100 (Australia species key); Emery, 1881b: 530 (Mediterranean & Red Sea species key); André, 1883a: 331, 343 (Europe & Algeria *Monomorium*, *Holcomyrmex* species keys); Cresson, 1887: 262 (U.S.A. catalogue); Nasonov, 1889: 69 (Russia species key); Dalla Torre, 1893: 65, 72, 78 (*Holcomyrmex*, *Monomorium*, *Trichomyrmex*, *Lampromyrmex* catalogues); Forel, 1903: 685, 692 (India & Sri Lanka *Monomorium*, *Holcomyrmex* species keys); Bingham, 1903: 200, 282 (India, Sri Lanka & Burma *Monomorium*, *Holcomyrmex* species keys); Ruzsky, 1905: 633 (Russian Empire species key); Emery, 1908g: 664 (Palearctic species key); Emery, 1915f: 190 (subgenera key); Arnold, 1916: 203, 204 (diagnosis, South Africa species key); Emery, 1916b: 161 (Italy species key); Santschi, 1921a: 121 (*Syllophopsis* species key); Emery, 1922c: 166 (diagnosis, subgenera key, catalogue); Emery, 1922c: 168 (*M. (Chelaner)* & *M. (Notomyrmex)* diagnoses, catalogues); Emery, 1922c: 170 (*M. (Monomorium)* diagnosis, catalogue); Emery, 1922c: 174 (*M. (Corynomyrmex)* diagnosis, catalogue); Emery, 1922c: 175 (*M. (Syllophopsis)* & *M. (Xeromyrmex)* diagnoses, catalogues); Emery, 1922c: 179 (*M. (Parholcomyrmex)* diagnosis, catalogue); Emery, 1922c: 181 (*M. (Holcomyrmex)* diagnosis, catalogue); Emery, 1922c: 183 (*M. (Lampromyrmex)* diagnosis, catalogue); Emery, 1922c: 184 (*Epixenus* diagnosis, catalogue); Emery, 1922c: 185 (*Trichomyrmex* diagnosis, catalogue); Emery, 1922c: 186 (*Wheeleriella* diagnosis, catalogue); Emery, 1922c: 204 (*Epoecus* diagnosis, catalogue); Wheeler, W.M. 1922a: 161, 675, 862, 1026 (diagnosis, subgenera key, Afrotropical, Malagasy catalogues); Menozzi, 1933a: 64 (Israel species key); Santschi, 1936a: 33 (Mediterranean & Africa *M. (Xeromyrmex)* key); Buren, 1944: 289 (U.S.A., Iowa species key); Kusnezov, 1949a: 431 (Argentina species); Creighton, 1950a: 217 (North America species key); Creighton, 1950a: 239 (*Epoecus*, review of genus); Chapman & Capco, 1951: 162, 169 (Asia *Ireneidris*, *Monomorium*, *Trichomyrmex*, *Wheeleriella* checklists); Bernard, 1955b: 282 (*Epixenus* species key); Brown, 1958c: 28 (New Zealand species key); Gregg, 1963: 367 (U.S.A., Colorado species key); Ettershank, 1966: 82, 93, 100 (*Monomorium*, *Chelaner*, *Syllophopsis* diagnoses, reviews of genera, checklists); Bernard, 1967: 165 (diagnosis, Western Europe species key); Kempf, 1972a: 143 (Neotropical catalogue); Alayo, 1974: 14 (Cuba species key); Arnol'di & Dlussky, 1978: 538 (former European U.S.S.R. species key); Collingwood, 1978: 82 (Iberian Peninsula species key); Smith, D.R. 1979: 1381 (North America catalogue); Tohmé & Tohmé, 1980: 1087 (Lebanon & Syria *Epixenus* species key); Collingwood, 1985: 267 (Saudi Arabia species key); Taylor & Brown, D.R. 1985: 55, 70 (Australia *Chelaner*, *Monomorium* catalogues); DuBois, 1986: 74 (Nearctic species revision, key); Bolton, 1987: 283 (*Antichthonidris*, review of genus); Bolton, 1987: 287 (diagnosis, review of genus, Afrotropical species revision, key); Taylor, 1987a: 19, 40 and Taylor, 1987b: 2 (Australia, New Caledonia & New Zealand checklist); Agosti & Collingwood, 1987: 272 (Balkans species key); Hölldobler & Wilson, 1990: 14 (synoptic classification); Dlussky, Soyunov & Zabelin, 1990: 231 (Turkmenistan species key); Brandão, 1991: 326, 357 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1992: 38 (Japan species key); Arakelian, 1994: 46 (Armenia species key); Bolton, 1995a: 1048, 1050 (census); Bolton, 1995b: 67, 258 (*Antichthonidris*, *Monomorium* catalogues); Wu, J. & Wang, 1995: 88 (China species key); Collingwood & Agosti, 1996: 337 (Saudi Arabia species key); Radchenko, 1997: 211 (*M. scabriceps* group revision, key); Collingwood & Prince, 1998: 19 (Portugal species key); Shattuck, 1999: 145 (Australia synopsis); Heterick, 2001: 367 (Australia species revision, key); Zhou, 2001: 112 (China, Guangxi species key).

Genus NOTHIDRIS

Nothidris Ettershank, 1966: 105. Type-species: *Monomorium latastei*, by original designation.

Taxonomic history

Nothidris in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81; in *Solenopsis* genus group: Bolton, 1987: 271.

Nothidris in Myrmicinae, *Megalomyrmecini*: Dlussky & Fedoseeva, 1988: 80.

Nothidris in Myrmicinae, Solenopsidini: Kempf, 1972a: 165; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Genus references

Kempf, 1972a: 165 (catalogue); Snelling, 1975: 5 (all species key); Snelling & Hunt, 1976: 79 (all species key); Bolton, 1987: 284 (review of genus); Brandão, 1991: 361 (catalogue); Bolton, 1995a: 1051 (census); Bolton, 1995b: 292 (catalogue).

Genus OLIGOMYRMEX tribal transfer

Oligomyrmex Mayr, 1867a: 110. Type-species: *Oligomyrmex concinnus*, by monotypy.

Taxonomic history

Oligomyrmex in Myrmicinae: Dalla Torre, 1893: 74.

Oligomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Oligomyrmex in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1922a: 663; Kempf, 1972a: 172; Smith, D.R. 1979: 1389; Jaffe, 1993:

10 (anachronism).

Oligomyrmex in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Oligomyrmex in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Forel, 1917: 243; Emery, 1924: 215; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106 [Pheidologetonini].

Junior synonyms of *OLIGOMYRMEX*

Aeromyrma Forel, 1891b: 198. Type-species: *Aeromyrma nosindambo*, by monotypy.

Taxonomic history

[*Aeromyrma* also described as new by Forel, 1891a: cccvii; no species-rank taxa named.]

Aeromyrma in Myrmicinae: Dalla Torre, 1893: 78.

Aeromyrma in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1922a: 663.

Aeromyrma in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Arnold, 1916: 256; Forel, 1917: 243; Emery, 1924: 215; all subsequent authors.

Aeromyrma as genus: Forel, 1891b: 198; Arnold, 1916: 256; Forel, 1917: 243; Wheeler, W.M. 1922a: 663, 882.

Aeromyrma as subgenus of *Oligomyrmex*: Emery, 1915c: 59 (footnote); Emery, 1924: 215; Donisthorpe, 1943c: 620.

Aeromyrma as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; all subsequent authors.

Aneleus Emery, 1900b: 327 [as subgenus of *Pheidologeton*]. Type-species: *Solenopsis similis*, by subsequent designation of Wheeler, W.M. 1911b: 158.

Taxonomic history

[Type-species not *Pheidologeton pygmaeus*, unjustified subsequent designation by Wheeler, W.M. 1913a: 77; repeated in Emery, 1924: 214.]

Aneleus in Myrmicinae, Solenopsidini: Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1922a: 663.

Aneleus in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Arnold, 1916: 254; Forel, 1917: 243; Emery, 1924: 213; all subsequent authors.

Aneleus as genus: Emery, 1914a: 41; Arnold, 1916: 254; Forel, 1917: 243; Wheeler, W.M. 1922a: 663; Emery, 1924: 213.

Aneleus as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; all subsequent authors.

Erebomyrma Wheeler, W.M. 1903a: 138. Type-species: *Erebomyrma longii*, by monotypy.

Taxonomic history

Erebomyrma in Myrmicinae, Solenopsidini: Wheeler, W.M. 1903a: 145; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1915e: 46; Wheeler, W.M. 1922a: 663.

Erebomyrma in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Erebomyrma in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Forel, 1917: 244; Emery, 1924: 218; all subsequent authors.

Erebomyrma as genus: Wheeler, W.M. 1922a: 663; Emery, 1924: 218; Creighton, 1950a: 245; Kusnezov, 1964: 62; Wilson, 1986: 61; Hölldobler & Wilson, 1990: 13.

Erebomyrma as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; Kempf, 1972a: 172; Smith, D.R. 1979: 1389; Bolton, 1994: 106; Bolton, 1995b: 298.

Lecanomyrma Forel, 1913d: 56 [as subgenus of *Pheidologeton*]. Type-species: *Pheidologeton (Lecanomyrma) butleri*, by monotypy.

Taxonomic history

Lecanomyrma as subgenus of *Pheidologeton*: Forel, 1913d: 56; Forel, 1917: 243.

Lecanomyrma as subgenus of *Aneleus*: Emery, 1924: 215.

Lecanomyrma as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; all subsequent authors.

Spelaeomyrmex Wheeler, W.M. 1922c: 9. Type-species: *Spelaeomyrmex urichi*, by original designation.

Taxonomic history

Spelaeomyrmex in Myrmicinae, Pheidologetonini: Wheeler, W.M. 1922c: 11; Donisthorpe, 1944a: 59.

Spelaeomyrmex in Myrmicinae, Solenopsidini: Donisthorpe, 1943d: 727; Kusnezov, 1964: 61.

Spelaeomyrmex as junior synonym of *Erebomyrma*: Wilson, 1962: 63.

Hendecatella Wheeler, W.M. 1927c: 93 [as subgenus of *Oligomyrmex*]. Type-species: *Oligomyrmex (Hendecatella) capreolus*, by monotypy.

Taxonomic history

Hendecatella as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; all subsequent authors.

Solenops Karavaiev, 1930: 207 [as subgenus of *Solenopsis*]. Type-species: *Solenopsis (Solenops) weyeri*, by monotypy.

Taxonomic history

Solenops as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119; all subsequent authors.

Crateropsis Patrizi, 1948: 174 [as subgenus of *Solenopsis*]. Type-species: *Solenopsis (Crateropsis) elmenteitae*, by original designation.

Taxonomic history

Crateropsis as junior synonym of *Oligomyrmex*: Ettershank, 1966: 120; all subsequent authors.

Sporocleptes Arnold, 1948: 219. Type-species: *Sporocleptes nicotianae*, by original designation.

Taxonomic history

Sporocleptes as junior synonym of *Aneleus*: Consani, 1951: 169; Arnold, 1952a: 460.

Nimbamyrmica Bernard, 1953: 240. Type-species: *Nimbamyrmica villiersi*, by monotypy.

Taxonomic history

Nimbamyrmica in Myrmicinae, Pheidologetini: Bernard, 1953: 240.

Nimbamyrmica as junior synonym of *Oligomyrmex*: Ettershank, 1966: 120; all subsequent authors.

Neoblepharidatta Sheela & Narendran, 1997: 88. Type-species: *Neoblepharidatta nayana*, by original designation. Syn. n. [Appendix 1.9, p. 273.]

Taxonomic history

Neoblepharidatta incertae sedis in Myrmicinae: Sheela & Narendran, 1997: 89.

Genus references

Dalla Torre, 1893: 74, 78 (*Oligomyrmex*, *Aeromyrma* catalogues); Bingham, 1903: 154 (India, Sri Lanka & Burma species key); Santschi, 1913c: 459 (African *Oligomyrmex*, key); Arnold, 1916: 254, 256 (*Aneleus*, *Aeromyrma* diagnoses); Wheeler, W.M. 1922a: 165, 687 (*Aeromyrma* diagnosis, *Oligomyrmex* subgenera key); Wheeler, W.M. 1922a: 880, 881, 882 (Afrotropical *Aneleus*, *Oligomyrmex*, *Aeromyrma* catalogues); Wheeler, W.M. 1922a: 1028 (Malagasy *Oligomyrmex*, *Aeromyrma* catalogues); Emery, 1924: 213 (*Aneleus* diagnosis, catalogue); Emery, 1924: 215 (*Aneleus* (*Lecanomyrma*) diagnosis, catalogue); Emery, 1924: 215 (*Oligomyrmex* (*Aeromyrma*) diagnosis, catalogue); Emery, 1924: 217 (*O. (Oligomyrma)* diagnosis, catalogue); Emery, 1924: 218 (*Erebomyrma* diagnosis, catalogue); Weber, 1950a: 1 (Africa species, synopsis); Chapman & Capco, 1951: 154, 156 (Asia *Aeromyrma*, *Aneleus*, *Oligomyrmex* checklists); Weber, 1952: 11 (Africa *O. (Aeromyrma)* species key); Ettershank, 1966: 119 (diagnosis, review of genus, checklist); Kempf, 1972a: 172 (Neotropical catalogue); Smith, D.R. 1979: 1390 (North America catalogue); Taylor & Brown, D.R. 1985: 71 (Australia catalogue); Taylor, 1987a: 50 (Australia, New Caledonia checklist); Taylor, 1991b: 605 (Australia species, partial key); Brandão, 1991: 342 (Neotropical catalogue); Morisita, Kubota, Onoyama, et al., 1992: 45 (Japan species key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 298 (catalogue); Wu, J. & Wang, 1995: 74 (China species key); Terayama, 1996: 24 (Japan species key); Shattuck, 1999: 148 (Australia synopsis).

Genus *OXYEPOECUS*

Oxyepoecus Santschi, 1926d: 6. Type-species: *Oxyepoecus bruchi*, by monotypy.

Taxonomic history

Oxyepoecus in Myrmicinae, Pheidolini: Donisthorpe, 1943c: 679.

Oxyepoecus in Myrmicinae, *Solenopsis* genus group: Ettershank, 1966: 81; Bolton, 1987: 271.

Oxyepoecus in Myrmicinae, Solenopsidini: Kusnezov, 1957a: 269; Kusnezov, 1962b: 160; Kusnezov, 1964: 61; Kempf, 1972a: 173; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Junior synonyms of *OXYEPOECUS*

Forelifidis Smith, M.R. 1954: 17.

Taxonomic history

[Replacement name for *Martia* Forel, 1907a: 20; junior homonym of *Martia* Ragonot, 1887: 18 (Lepidoptera).]

Forelifidis as junior synonym of *Oxyepoecus*: Brown, 1955a: 68.

Homonym replaced by *Forelifidis*

Martia Forel, 1907a: 20 [as subgenus of *Monomorium*]. Type-species: *Monomorium (Martia) vezeyii*, by monotypy.

Taxonomic history

[Junior homonym of *Martia* Ragonot, 1887: 18 (Lepidoptera).]

Martia as subgenus of *Monomorium*: Forel, 1907a: 20; Wheeler, W.M. 1910d: 139; Emery, 1915f: 190; Forel, 1917: 242; Emery, 1922c: 182; Wheeler, W.M. 1922a: 676; subsequent authors.

Genus references

Emery, 1922c: 182 (*Monorium (Martia)* diagnosis, catalogue); Borgmeier, 1927a: 65 (*Monorium (Martia)* all species key); Kusnezov, 1952g: 720 (Argentina species key); Ettershank, 1966: 144 (diagnosis, review of genus, checklist); Kempf, 1972a: 173 (catalogue); Kempf, 1974b: 510 (diagnosis, all species revision, key); Bolton, 1987: 286 (notes); Brandão, 1991: 364 (catalogue); Bolton, 1995a: 1051 (census); Bolton, 1995b: 301 (catalogue).

Genus *PAEDALGUS* tribal transfer

Paedalgus Forel, 1911d: 217. Type-species: *Paedalgus escherichi*, by monotypy.

Taxonomic history

Paedalgus in Myrmicinae, Solenopsidini: Forel, 1911d: 218; Wheeler, W.M. 1922a: 663.

Paedalgus in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Paedalgus in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Forel, 1917: 244; Emery, 1924: 221; Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106 [Pheidologetonini].

Genus references

Wheeler, W.M. 1922a: 177, 884 (diagnosis, Afrotropical catalogue); Emery, 1924: 221 (diagnosis, catalogue); Chapman & Capco, 1951: 158 (Asia checklist); Ettershank, 1966: 128 (diagnosis, review of genus, checklist); Bolton & Belshaw, 1993: 181 (diagnosis, all species revision, key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 311 (catalogue).

Genus PHACOTA

Phacota Roger, 1862b: 260. Type-species: *Phacota sichelii*, by monotypy.

Taxonomic history

Phacota in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Phacota in Myrmicinae, Solenopsidini: Mayr, 1865: 22 [Myrmicidae]; Emery & Forel, 1879: 464 [Myrmicidae]; Dalla Torre, 1893: 71.

Phacota in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Phacota in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Phacota in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 187; Wheeler, W.M. 1922a: 662; all subsequent authors except the entry below; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106.

Phacota in Myrmicinae, *Solenopsis* genus group: Bolton, 1987: 271.

Phacota as junior synonym of *Monomorium*: Ettershank, 1966: 82.

Phacota as genus: Bolton, 1987: 281.

Genus references

Roger, 1863b: 30 (catalogue); Mayr, 1863: 440 (catalogue); Mayr, 1865: 22 (diagnosis); André, 1883b: 397 (Europe & Algeria species); Dalla Torre, 1893: 71 (catalogue); Emery, 1922c: 187 (diagnosis, catalogue); Bolton, 1987: 281 (diagnosis, review of genus); Bolton, 1995a: 1051 (census); Bolton, 1995b: 316 (catalogue).

Genus PHEIDOLOGETON tribal transfer

Pheidologeton Mayr, 1862: 750. Type-species: *Oecodoma diversa*, by subsequent designation of Bingham, 1903: 160.

Taxonomic history

Pheidologeton in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Pheidologeton in Myrmicinae: Mayr, 1865: 22 [Myrmicidae]; Dalla Torre, 1893: 72.

Pheidologeton in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1922a: 663.

Pheidologeton in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Pheidologeton in Myrmicinae, Pheidologetini: Emery, 1914a: 41; Forel, 1917: 243; Emery, 1924: 211; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106 [Pheidologetonini].

Junior synonyms of PHEIDOLOGETON

Phidologeton Bingham, 1903: 160, unjustified emendation of *Pheidologeton*.

Taxonomic history

Phidologeton as junior synonym of *Pheidologeton*: Wheeler, W.M. 1922a: 880.

Amauromyrmex Wheeler, W.M. 1929b: 1. Type-species: *Amauromyrmex speculifrons* (junior synonym of *Pheidologeton silenus*), by original designation.

Taxonomic history

Amauromyrmex in Myrmicinae, Pheidologetini: Wheeler, W.M. 1929b: 3; all subsequent authors.

Amauromyrmex as junior synonym of *Pheidologeton*: Ettershank, 1966: 115.

Idrisella Santschi, 1937c: 372. Type-species: *Pheidologeton dentiviris*, by original designation.

Taxonomic history

Idrisella in Myrmicinae, Pheidologetini: Donisthorpe, 1943c: 653.

Idrisella as junior synonym of *Pheidologeton*: Ettershank, 1966: 115.

Genus references

Roger, 1863b: 30 (catalogue); Mayr, 1863: 442 (catalogue); Mayr, 1865: 22 (diagnosis); Mayr, 1867a: 100 (diagnosis); Dalla Torre, 1893: 72 (catalogue); Forel, 1903: 690 (India & Sri Lanka species key); Bingham, 1903: 162 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1922a: 682 (subgenera key); Wheeler, W.M. 1922a: 880 (Afrotropical catalogue); Emery, 1924: 211 (diagnosis, catalogue); Chapman & Capco, 1951: 155, 158 (Asia *Amauromyrmex*, *Pheidologeton* checklists); Ettershank, 1966: 115 (diagnosis, review of genus, checklist); Taylor & Brown, D.R. 1985: 79 (Australia catalogue); Taylor, 1987a: 55 (Australia checklist); Bolton, 1995a: 1051 (census); Bolton, 1995b: 333 (catalogue); Wu, J. & Wang, 1995: 72 (China species key); Shattuck, 1999: 156 (Australia synopsis); Zhou, 2001: 89 (China, Guangxi species key).

Genus SOLENOPSIS

Solenopsis Westwood, 1840b: 86. Type-species: *Solenopsis mandibularis* (junior synonym of *Solenopsis geminata*), by monotypy.

Taxonomic history

Solenopsis in Poneridae, Attidae: Smith, F. 1858b: 177.

Solenopsis in Attidae: Smith, F. 1860a: 74; Smith, F. 1861: 48.

Solenopsis in Myrmicidae: Smith, F. 1871: 333; Cresson, 1887: 262.

Solenopsis in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Solenopsis in Myrmicinae: Mayr, 1865: 24 [Myrmicidae]; Emery & Forel, 1879: 464 [Myrmicidae]; Dalla Torre, 1893: 75.

Solenopsis in Myrmicinae, *Solenopsis* genus group: Ettershank, 1966: 81; Bolton, 1987: 271.

Solenopsis in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Forel, 1895a: 130; Emery, 1895e: 770; Forel, 1899: 79; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Emery, 1914a: 41; Arnold, 1916:

242; Forel, 1917: 243; Emery, 1922c: 195; Wheeler, W.M. 1922a: 663; Kempf, 1972a: 232; Smith, D.R. 1979: 1384; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Jaffe, 1993: 10; Bolton, 1994: 106.

Junior synonyms of *SOLENOPSIS*

Diplorhoptrum Mayr, 1855: 449. Type-species: *Formica fugax*, by monotypy.

Taxonomic history

Diplorhoptrum in Myrmicinae: Mayr, 1855: 449 [Myrmicidae]; Mayr, 1861: 72 [Myrmicidae].

Diplorhoptrum in Myrmicinae, Solenopsidini: Emery, 1922c: 195; all subsequent authors.

Diplorhoptrum as genus: Mayr, 1855: 449; Baroni Urbani, 1968: 68; Kutter, 1977b: 98; Bernard, 1978: 543; Arnol'di & Dlussky, 1978: 539; Collingwood, 1979: 64; Dlussky & Fedoseeva, 1988: 80; Kupyanskaya, 1990: 132; Atanasov & Dlussky, 1992: 167; Dlussky & Radchenko, 1994: 102.

Diplorhoptrum as subgenus of *Solenopsis*: Creighton, 1930b: 43; Santschi, 1934: 566 (in text), 568; Creighton, 1950a: 233; Smith, M.R. 1951: 813; Kusnezov, 1956: 27; Kusnezov, 1957a: 273; Kusnezov, 1962b: 160; Smith, M.R. 1967: 358.

Diplorhoptrum as junior synonym of *Solenopsis*: Mayr, 1862: 751; Roger, 1863b: 32; Mayr, 1863: 453; Emery & Forel, 1879: 464; Dalla Torre, 1893: 75; Forel, 1915c: 9; Emery, 1922c: 195; Wheeler, W.M. 1922a: 877; Donisthorpe, 1943c: 639; Ettershank, 1966: 134; Kempf, 1972a: 232; Smith, D.R. 1979: 1384; Bolton, 1987: 285; Bolton, 1994: 106; Bolton, 1995b: 27.

Octella Forel, 1915a: 70 [as subgenus of *Oligomyrmex*]. Type-species: *Oligomyrmex (Octella) pachycerus*, by original designation.

Taxonomic history

Octella as subgenus of *Oligomyrmex*: Forel, 1917: 243; Wheeler, W.M. 1922a: 687; Emery, 1924: 218.

Octella as junior synonym of *Oligomyrmex*: Ettershank, 1966: 119.

Octella as junior synonym of *Solenopsis*: Taylor, 1991b: 611.

Synsolenopsis Forel, 1918: 155 [as subgenus of *Solenopsis*]. Type-species: *Solenopsis (Synsolenopsis) bruchi* (junior primary homonym in *Solenopsis*, replaced by *Solenopsis bruchiella*), by monotypy.

Taxonomic history

Synsolenopsis as subgenus of *Solenopsis*: Forel, 1918: 155; Emery, 1922c: 196.

Synsolenopsis as genus: Creighton, 1930b: 41 (in text); Kusnezov, 1953b: 341; Kusnezov, 1957a: 272; Kusnezov, 1962b: 160; Kusnezov, 1964: 61.

Synsolenopsis as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Diagyne Santschi, 1923c: 268 [as subgenus of *Solenopsis*]. Type-species: *Solenopsis succinea* by monotypy.

Taxonomic history

Diagyne in Myrmicinae, Solenopsidini: Donisthorpe, 1943c: 638.

Diagyne as subgenus of *Solenopsis*: Santschi, 1923c: 268; Creighton, 1930b: 42; Kusnezov, 1962b: 160.

Diagyne junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Labauchena Santschi, 1930d: 81. Type-species: *Labauchena daguerrei*, by monotypy.

Taxonomic history

Labauchena in Myrmicinae, Solenopsidini: Santschi, 1930d: 81; all subsequent authors.

Labauchena as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Euophthalma Creighton, 1930b: 43 [as subgenus of *Solenopsis*]. Type-species: *Myrmica globularia*, by original designation.

Taxonomic history

Euophthalma as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Oedaleocerus Creighton, 1930b: 43 [as subgenus of *Solenopsis*]. Type-species: *Solenopsis angulata*, by original designation.

Taxonomic history

Oedaleocerus in Myrmicinae, Solenopsidini: Donisthorpe, 1943c: 677.

Oedaleocerus as subgenus of *Solenopsis*: Creighton, 1930b: 43.

Oedaleocerus as genus: Kusnezov, 1957a: 272; Kusnezov, 1962b: 160; Kusnezov, 1964: 61.

Oedaleocerus as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Bisolenopsis Kusnezov, 1953c: 9. Type-species: *Bisolenopsis sea*, by monotypy.

Taxonomic history

Bisolenopsis in Myrmicinae, Solenopsidini: Kusnezov, 1953c: 9; Kusnezov, 1957a: 272; Kusnezov, 1962b: 159; Kusnezov, 1964: 61.

Bisolenopsis as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

[*Disolenopsis* Snelling, 1981: 397, incorrect subsequent spelling.]

Paranamyрма Kusnezov, 1953c: 17. Type-species: *Paranamyрма solenopsidis*, by monotypy.

Taxonomic history

[*Paranamyрма* also described as new by Kusnezov, 1954: 9.]

Paranamyрма in Myrmicinae, Solenopsidini: Kusnezov, 1957a: 267 (in key); Kusnezov, 1962b: 160; Kusnezov, 1964: 61.

Paranamyрма as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Granisolenopsis Kusnezov, 1956: 26 [as subgenus of *Solenopsis*] (diagnosis in key). Type-species: *Solenopsis (Granisolenopsis) granivora*, by original designation.

Taxonomic history

[*Granisolenopsis* also described as new by Kusnezov, 1957a: 277.]

Granisolenopsis as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Lilidris Kusnezov, 1956: 26 (diagnosis in key). Type-species: *Lilidris metatarsalis*, by original designation.

Taxonomic history

[*Lilidris* also described as new by Kusnezov, 1957a: 274 and Kusnezov, 1958b: 189.]

Lilidris in Myrmicinae, Solenopsidini: Kusnezov, 1957a: 274; Kusnezov, 1958b: 189; Kusnezov, 1962b: 159; Kusnezov, 1964: 61.

Lilidris as junior synonym of *Solenopsis*: Ettershank, 1966: 134.

Genus references

Smith, F. 1858b: 177 (diagnosis); Roger, 1863b: 32 (catalogue); Mayr, 1863: 453 (catalogue); Mayr, 1865: 24 (diagnosis); Mayr, 1867a: 109 (diagnosis); Mayr, 1870b: 996 (all species key); André, 1883b: 387 (Europe & Algeria species key); Cresson, 1887: 262 (U.S.A. catalogue); Dalla Torre, 1893: 75 (catalogue); Emery, 1896c: 82 (New World species key); Forel, 1903: 689 (India & Sri Lanka species key); Bingham, 1903: 158 (India, Sri Lanka & Burma species key); Emery, 1909a: 29 (Palearctic species key); Emery, 1916b: 165 (Italy species key); Arnold, 1916: 242 (diagnosis); Emery, 1922c: 195 (diagnosis, catalogue); Wheeler, W.M. 1922a: 163, 877, 1028 (diagnosis, Afrotropical, Malagasy catalogues); Emery, 1924: 218 (*Oligomyrmex* (*Octella*) diagnosis, catalogue); Creighton, 1930b: 42 (subgenera key); Creighton, 1930b: 45 (*S. (Solenopsis)* species key); Creighton, 1930b: 106 (*S. (Euophthalma)* species key); Cole, 1942: 361 (U.S.A., Utah species key); Bernard, 1950: 5 (France species key); Creighton, 1950a: 228 (North America species key); Chapman & Capco, 1951: 167 (Asia checklist); Wilson, 1952: 50 (South America *S. saevissima* complex, key); Kusnezov, 1953b: 347 (*Synsolenopsis* species key); Gregg, 1963: 370 (U.S.A., Colorado species key); Snelling, 1963: 1 (U.S.A. *S. geminata* group species); Ettershank, 1966: 134 (diagnosis, review of genus, checklist); Bernard, 1967: 170 (diagnosis, Western Europe species key); Kusnezov, 1969: 37 (*Bisolenopsis* species key); Buren, 1972: 1 (*S. geminata* group, partial revision); Kempf, 1972a: 232 (Neotropical catalogue); Snelling & Hunt, 1976: 81 (Chile species key); Kutter, 1977b: 99 (Switzerland species key); Arnol'di & Dlussky, 1978: 539 (former European U.S.S.R. species key); Collingwood, 1978: 82 (Iberian Peninsula species key); Bernard, 1978: 573 (France species key); Smith, D.R. 1979: 1385 (North America catalogue); Allred, 1982: 443 (U.S.A., Utah species key); Gösswald, 1985: 302 (Germany species key); Taylor & Brown, D.R. 1985: 87 (Australia catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 50 (U.S.A., Nevada species key); Taylor, 1987a: 72 (Australia, New Caledonia checklist); Agosti & Collingwood, 1987: 273 (Balkans species key); Bolton, 1987: 285 (synonymy notes); Thompson & Johnson, 1989: 697 (U.S.A., Florida species key); Dlussky, Soyunov & Zabelin, 1990: 240 (Turkmenistan species key); Brandão, 1991: 378 (Neotropical catalogue); Trager, 1991: 141 (*S. geminata* group revision, key); Morisita, Kubota, Onoyama, *et al.*, 1992: 41 (Japan species key); Arakelian, 1994: 48 (Armenia species key); Dlussky & Radchenko, 1994: 102 (Central Palearctic species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 386 (catalogue); Wu, J. & Wang, 1995: 70 (China species key); Collingwood & Agosti, 1996: 358 (Saudi Arabia species key); Collingwood & Prince, 1998: 18 (Portugal species key); Shattuck, 1999: 165 (Australia synopsis); Taber, 2000: 234 (U.S.A. *S. geminata* group, key); Snelling, 2001: 522 (Puerto Rico *S. fugax* group, key).

Genus *TRANOPELTA* tribal transfer

Tranopelta Mayr, 1866a: 512. Type-species: *Tranopelta gilva*, by monotypy.

Taxonomic history

Tranopelta in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Tranopelta in Myrmicinae: Dalla Torre, 1893: 74.

Tranopelta in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Tranopelta in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Forel, 1899: 79; Wheeler, W.M. 1910d: 140; Emery, 1914a: 41; Forel, 1917: 243; Emery, 1922c: 192; Wheeler, W.M. 1922a: 663; all subsequent authors except the entries below; Kempf, 1972a: 255; Jaffe, 1993: 10.

Tranopelta in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81.

Tranopelta in Myrmicinae, *Megalomyrmecini*: Dlussky & Fedoseeva, 1988: 80.

Tranopelta in Myrmicinae, *Ochetomyrmecini*: Bolton, 1994: 106.

Genus references

Dalla Torre, 1893: 74 (catalogue); Emery, 1922c: 192 (diagnosis, catalogue); Ettershank, 1966: 107 (diagnosis, review of genus, checklist); Kempf, 1972a: 255 (catalogue); Bolton, 1987: 266 (affinities); Bolton, 1995a: 1053 (census); Bolton, 1995b: 421 (catalogue); Fernández, 2003: 646 (all species revision, key).

Genera *incertae sedis* in Solenopsidini

Genus **HYPOPOMYRMEX* tribal transfer

**Hypopomyrmex* Emery, 1891a: 148. Type-species: **Hypopomyrmex bombycicii*, by monotypy.

Taxonomic history

**Hypopomyrmex* in Myrmicinae: Dalla Torre, 1893: 145.

**Hypopomyrmex* in Myrmicinae, Dacetini: Forel, 1892c: 344; Forel, 1893a: 164; Donisthorpe, 1943c: 652; Brown, 1948b: 102.

**Hypopomyrmex* in Myrmicinae, Pheidologetini: Brown & Carpenter, 1979: 422; Bolton, 1994: 106 [Pheidologetonini].

**Hypopomyrmex incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 80 (anachronism).

Genus references

Brown & Carpenter, 1979: 422 (genus reassessment).

Genus **OXYIDRIS* tribal transfer

**Oxydris* Wilson, 1985a: 5. Type-species: **Oxydris antillana*, by original designation.

Taxonomic history

**Oxydris incertae sedis* in Myrmicinae: Wilson, 1985a: 2.

**Oxydris* in Myrmicinae, Solenopsidini: Dlussky & Fedoseeva, 1988: 80.

**Oxydris* in Myrmicinae, Pheidoloetini: Bolton, 1994: 106 [Pheidologetonini].

Tribe MYRMICINI

Myrmicites Lepeletier de Saint-Fargeau, 1835: 169. Type-genus: *Myrmica*.

Taxonomic history

Myrmicini as group name: Lepeletier de Saint-Fargeau, 1835: 169 [Myrmicites].

Myrmicini as tribe of Myrmicidae: Forel, 1891b: 143.

Myrmicini as tribe of Myrmicinae: Forel, 1893a: 164 [Myrmicii]; Forel, 1895a: 124 [Myrmicii]; Forel, 1899: 52 [Myrmicii]; Wheeler, W.M. 1910d: 139 [Myrmicii]; Ashmead, 1905b: 383; Emery, 1914a: 35; Wheeler, W.M. 1915e: 51; Forel, 1917: 240; Emery, 1921b: 35; Wheeler, W.M. 1922a: 655; all subsequent authors. [*Taxonomy*, p. 61.]

Genera (extant): *Eutetramorium*, *Huberia*, *Hylomyrma*, *Manica*, *Myrmica*, *Pogonomyrmex*, *Secostruma*.

Genus (extinct) *incertae sedis*: **Nothomyrmica*.

Tribe references

Emery, 1895e: 768 (diagnosis); Wheeler, W.M. 1910d: 139 (diagnosis); Emery, 1914a: 35, 40 (diagnosis (in key), synoptic classification); Forel, 1917: 240 (synoptic classification); Emery, 1921b: 35 (diagnosis, genera key, catalogue); Wheeler, W.M. 1922a: 660 (genera key); Wheeler, G.C. & Wheeler, J. 1976: 53 (larvae, review & synthesis); Kugler, C. 1978a: 414 (sting structure); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 390 (Neotropical fauna, synoptic classification); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 13 (catalogue).

Genera of Myrmicini**Genus *EUTETRAMORIUM***

Eutetramorium Emery, 1899c: 280. Type-species: *Eutetramorium mocquerysi*, by subsequent designation of Wheeler, W.M. 1911b: 163.

Taxonomic history

Eutetramorium in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41.

Eutetramorium in Myrmicinae, Tetramorini: Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 141; Emery, 1915f: 192; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 291; subsequent authors to the entry below, including Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism).

Eutetramorium in Myrmicinae, Myrmicini: Bolton, 1976: 293; Bolton, 1994: 106.

Genus references

Wheeler, W.M. 1922a: 1032 (catalogue); Emery, 1924: 291 (diagnosis, catalogue); Kugler, C. 1979a: 255 (sting structure); Bolton, 1995a: 1049 (census); Bolton, 1995b: 190 (catalogue).

Genus *HUBERIA*

Huberia Forel, 1890b: cv. Type-species: *Tetramorium striatum*, by monotypy.

Taxonomic history

Huberia in Myrmicinae: Dalla Torre, 1893: 70.

Huberia in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Huberia in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 242; Emery, 1922c: 165; Wheeler, W.M. 1922a: 662.

Huberia in Myrmicinae, Pheidolini: Bolton, 1995b: 31 [error].

Huberia in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106.

Huberia incertae sedis in Myrmicinae: Ettershank, 1966: 81.

Genus references

Dalla Torre, 1893: 70 (catalogue); Emery, 1922c: 165 (diagnosis, catalogue); Brown, 1958c: 7 (species key); Ettershank, 1966: 155 (diagnosis, review of genus, checklist); Taylor, 1987a: 29 (New Zealand checklist); Bolton, 1995a: 1050 (census); Bolton, 1995b: 212 (catalogue).

Genus *HYLOMYRMA*

Hylomyrma Forel, 1912d: 16 [as subgenus of *Pogonomyrmex*]. Type-species: *Pogonomyrmex (Hylomyrma) columbicus*, by original designation.

Taxonomic history

Hylomyrma in Myrmicinae, Myrmicini: Emery, 1921b: 49; Wheeler, W.M. 1922a: 660; all subsequent authors.

Hylomyrma as subgenus of *Pogonomyrmex*: Forel, 1912d: 16; Forel, 1917: 240; Emery, 1921b: 49;

Donisthorpe, 1943c: 651; Kusnezov, 1951a: 245; Kusnezov, 1956: 18.

Hylomyrma as genus: Wheeler, W.M. 1922a: 660 (in key); Borgmeier, 1927b: 77; Brown, 1953d: 3; Kempf, 1964b: 54; all subsequent authors.

Junior synonym of *HYLOMYRMA*

Lundella Emery, 1915f: 191. Type-species: *Tetramorium reitteri*, by original designation.

Taxonomic history

Lundella in Myrmicinae, Tetramorini: Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Donisthorpe, 1943c: 658.

Lundella as junior synonym of *Hylomyrma*: Brown, 1953d: 3.

Genus references

Emery, 1921b: 49 (*Pogonomyrmex* (*Hylomyrma*) diagnosis, catalogue); Emery, 1924: 292 (*Lundella* diagnosis, catalogue); Kempf, 1964b: 54 (species key); Kempf, 1972a: 118 (Neotropical catalogue); Kempf, 1973a: 258 (diagnosis, all species revision, key); Kutter, 1977a: 86 (species key); Brandão, 1991: 346 (catalogue); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 213 (catalogue).

Genus *MANICA*

Manica Jurine, 1807: 276. Type-species: *Formica rubida*, by subsequent designation of Wheeler, W.M. 1911b: 166.

Taxonomic history

Manica in Myrmicinae, Myrmicini: Wheeler, W.M. 1922a: 660; all subsequent authors.

Manica as junior synonym of *Myrmica*: Roger, 1863b: 28; Mayr, 1863: 431; Emery & Forel, 1879: 460; Dalla Torre, 1893: 108; Forel, 1915c: 9.

Manica as subgenus of *Myrmica*: Emery, 1921b: 42; Wheeler, W.M. 1922a: 660; Smith, M.R. 1951: 791.

Manica as genus: Jurine, 1807: 276; Weber, 1947: 439; Creighton, 1950a: 105; Smith, M.R. 1958: 113; all subsequent authors.

Junior synonyms of *MANICA*

Neomyrma Forel, 1914a: 275 [as subgenus of *Aphaenogaster*]. Type-species: *Aphaenogaster* (*Neomyrma*) *calderoni* (junior synonym of *Manica bradleyi*), by monotypy.

Taxonomic history

Neomyrma as subgenus of *Aphaenogaster*: Forel, 1914a: 275.

Neomyrma as subgenus of *Myrmica*: Forel, 1915b: 364 (in text); Emery, 1915d: 69; Emery, 1916b: 120; Forel, 1917: 241.

Neomyrma as genus: Bondroit, 1918: 97.

Neomyrma as junior synonym of *Myrmica*: Donisthorpe, 1916a: 242.

Neomyrma as junior synonym of *Manica*: Emery, 1921b: 42; Wheeler, W.M. 1922a: 660.

Oreomyrma Wheeler, W.M. 1914b: 118 (in text) [as subgenus of *Myrmica*]. Type-species: *Formica rubida* (quoted by Wheeler as *Myrmica rubida*), by original designation.

Taxonomic history

Oreomyrma as junior synonym of *Neomyrma*: Wheeler, W.M. 1915a: 50; Forel, 1915b: 364; Forel, 1915c: 9; Donisthorpe, 1916a: 242. [As *Manica* and *Oreomyrma* share the same type-species, synonymy is absolute.]

Genus references

Wheeler, W.M. 1914b: 119 (U.S.A. species key); Emery, 1921b: 42 (diagnosis, catalogue); Creighton, 1950a: 108 (North America species key); Bernard, 1967: 125 (diagnosis); Smith, D.R. 1979: 1352 (North America catalogue); Allred, 1982: 440 (U.S.A., Utah species key); Wheeler, G.C. & Wheeler, J. 1986b: 25 (U.S.A., Nevada species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 13 (Japan species key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 249 (catalogue).

Genus *MYRMICA*

Myrmica Latreille, 1804: 179. Type-species: *Formica rubra*, by subsequent designation of Latreille, 1810: 437.

Taxonomic history

Myrmica in Myrmicites: Lepeletier de Saint-Fargeau, 1835: 180.

Myrmica in Poneridae, Myrmicidae: Smith, F. 1858b: 114.

Myrmica in Myrmicidae: Smith, F. 1871: 324; Cresson, 1887: 260.

Myrmica in Myrmicinae: Mayr, 1855: 396 [Myrmicidae]; Smith, F. 1857: 70 [Myrmicidae]; Mayr, 1861: 62 [Myrmicidae]; Mayr, 1865: 19 [Myrmicidae]; Emery & Forel, 1879: 460 [Myrmicidae]; Dalla Torre, 1893: 108.

Myrmica in Myrmicinae, Myrmicini: Forel, 1895a: 125; Emery, 1895e: 769; Forel, 1899: 63; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Emery, 1914a: 40; Wheeler, W.M. 1915e: 59; Forel, 1917: 241; Bondroit, 1918: 96; Emery, 1921b: 36; Wheeler, W.M. 1922a: 660; all subsequent authors.

Junior synonyms of *MYRMICA*

Sifolinia Emery, 1907: 49. Type-species: *Sifolinia laurae*, by monotypy.

Taxonomic history

Sifolinia in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 117; Wheeler, W.M. 1922a: 661.

Sifolinia in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139; Collingwood, 1979: 58; Dlussky & Fedoseeva, 1988: 79.

Sifolinia as junior synonym of *Myrmica*: Brown, 1973b: 184 [provisional]; Bolton, 1988a: 3.

Sommimyrmica Menozzi, 1925b: 25. Type-species: *Sommimyrmica symbiotica*, by original designation.

Taxonomic history

Sommimyrmica in Myrmicinae, Myrmicini: Donisthorpe, 1943d: 726.

Sommimyrmica as junior synonym of *Myrmica*: Brown, 1973b: 184 [provisional]; Bolton, 1988a: 3.

Symbiomyrmica Arnol'di, 1930b: 267. Type-species: *Symbiomyrmica karavaievi*, by monotypy.

Taxonomic history

[*Symbiomyrmica* also described as new by Arnol'di, 1933a: 41.]

Symbiomyrmica in Myrmicinae, Pheidolini: Karavaiev, 1934: 102.

Symbiomyrmica in Myrmicinae, Myrmicini: Donisthorpe, 1943d: 729.

Symbiomyrmica as genus: Karavaiev, 1934: 102; Seifert, 1994: 15; Seifert, 1996: 236 (not followed here,

Symbiomyrmica returned to junior synonymy under *Myrmica*).

Symbiomyrmica as junior synonym of *Sifolinia*: Samsinak, 1964: 156.

Symbiomyrmica as junior synonym of *Myrmica*: Bolton, 1988a: 3; Bolton, 1994: 106.

Paramyrmica Cole, 1957: 37. Type-species: *Paramyrmica colax*, by original designation.

Taxonomic history

Paramyrmica in Myrmicinae, Myrmicini: Wheeler, G.C. & Wheeler, J. 1985: 257.

Paramyrmica as genus: Gregg, 1961: 215; Smith, M.R. 1967: 350; Smith, D.R. 1979: 1351.

Paramyrmica as junior synonym of *Myrmica*: Brown, 1973b: 183 [provisional]; Bolton, 1988a: 3.

Dodecamyrmica Arnol'di, 1968: 1803 [as subgenus of *Myrmica*]. Type-species: *Myrmica arnoldii*, by original designation.

Taxonomic history

Dodecamyrmica as junior synonym of *Myrmica*: Brown, 1973b: 180 [provisional]; Francoeur, 1981: 759;

Bolton, 1988a: 4.

Genus references

Mayr, 1855: 396, 397 (diagnosis, Austria species key); Smith, F. 1858b: 114 (diagnosis); Mayr, 1861: 62 (Europe species key); Roger, 1863b: 28 (catalogue); Mayr, 1863: 429 (catalogue); Mayr, 1865: 19 (diagnosis); André, 1874: 192 (Europe species key); Forel, 1874: 75 (Switzerland species key); André, 1883a: 315 (Europe & Algeria species key); Cresson, 1887: 260 (U.S.A. catalogue); Provancher, 1887: 246 (Canada species key); Nasonov, 1889: 71 (Russia species key); Lameere, 1892: 68 (Belgium species key); Dalla Torre, 1893: 108 (catalogue); Forel, 1903: 696 (India species key); Bingham, 1903: 267 (India, Sri Lanka & Burma species key); Ruzsky, 1905: 652 (Russian Empire species key); Wasmann, 1906: 15 (Luxemburg species key); Emery, 1908a: 165 (Palearctic species key); Bondroit, 1910: 493 (Belgium species key); Stitz, 1914: 70 (Central Europe species key); Donisthorpe, 1915: 110 (Britain species key); Emery, 1916b: 121 (Italy species key); Wheeler, W.M. 1916g: 581 (U.S.A., Connecticut species key); Bondroit, 1918: 98 (France & Belgium species key); Emery, 1921b: 36 (diagnosis, catalogue); Emery, 1922c: 117 (*Sifolinia* diagnosis, catalogue); Finzi, 1926: 77 (diagnosis, European species key); Kuznetsov-Ugamsky, 1927d: 190 (Turkestan species key); Karavaiev, 1927a: 258 (Ukraine species key); Donisthorpe, 1927: 118 (Britain species key); Arnol'di, 1933b: 599 (Russia species key); Arnol'di, 1934: 151 (former European U.S.S.R. species, biometrics); Karavaiev, 1934: 63 (Ukraine species key); Menozzi, 1939: 293 (Himalaya & Tibet species key); Stitz, 1939: 74 (Germany species key); Kratochvíl, 1941: 75 (Central Europe species key); Novák & Sádíl, 1941: 75 (Central Europe species key); Cole, 1942: 367 (U.S.A., Utah species key); Holgersen, 1943: 168 (Norway species key); Holgersen, 1944: 199 (Norway species key); Buren, 1944: 281 (U.S.A., Iowa species key); Boven, 1947: 175 (Belgium species key); Weber, 1947: 444 (North America species key); Creighton, 1950a: 92 (North America species key); Chapman & Capco, 1951: 124 (Asia checklist); Sádíl, 1952: 264 (Czechia & Slovakia species key); Collingwood, 1958b: 65 (Britain species key); Boven, 1959: 7 (Netherlands species key); Gregg, 1963: 290 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 96 (U.S.A., North Dakota species key); Collingwood, 1964: 101 (Britain species key); Bernard, 1967: 107 (diagnosis, Western Europe species key); Bernard, 1967: 156 (*Sifolinia* diagnosis); Boven, 1970: 16 (Netherlands species key); Arnol'di, 1970: 1832 (former European U.S.S.R. species key); Kutter, 1973a: 253 (morphology, satellite genera, *Sifolinia*, *Sommimyrmica*, *Symbiomyrmica*, key to first); Bolton & Collingwood, 1975: 5 (Britain species key); Arnol'di, 1976a: 554 (central Asia & Kazakhstan species key); Tarbinsky, 1976: 20 (Kirgizstan species key); Boven, 1977: 94 (Belgium species key); Kutter, 1977b: 43 (Switzerland species key); Arnol'di & Dlussky, 1978: 530 (former European U.S.S.R. species key); Collingwood, 1978: 78 (Iberian Peninsula species key); Collingwood, 1979: 41 (Fennoscandia & Denmark species key); Smith, D.R. 1979: 1347, 1351 (North America *Myrmica*, *Paramyrmica* catalogues); Francoeur, 1981: 755 (*M. lampra* group); Allred, 1982: 440 (U.S.A., Utah species key); Gösswald, 1985: 294 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 22 (U.S.A., Nevada species key); Kupyanskaya, 1986: 83 (Far Eastern Russia *M. lobicornis* group, key); Nilsson & Douwes, 1987: 62 (Norway species key); Agosti & Collingwood, 1987: 267 (Balkans species key); Seifert, 1988b: 43 (Europe, Asia Minor & Caucasus species key); Bolton, 1988a: 3 (diagnosis, review of genus, venation); Dlussky, Soyunov & Zabelin, 1990: 181 (Turkmenistan species key); Kupyanskaya, 1990: 92 (Far Eastern Russia species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 8 (Japan species key); Atanasov & Dlussky, 1992: 80 (Bulgaria species key); Arakelian, 1994: 20 (Armenia species key); Radchenko, 1994a: 105 (South Siberia species key); Radchenko, 1994b: 130 (Central & Eastern Palearctic species key); Douwes, 1995: 86 (Sweden species key); Bolton, 1994: 106 (synoptic classification);

Kupyanskaya, 1995: 337 (Far Eastern Russia species key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 277 (catalogue); Wu, J. & Wang, 1995: 91 (China species key); Seifert, 1996: 140 (Central Europe species key); Skinner & Allen, 1996: 45 (Britain species key); Radchenko, Czechowski & Czechowska, 1997: 481 (Poland species key); Collingwood & Prince, 1998: 12 (Portugal species key); Radchenko & Elmes, 1998: 3 (*M. ritae* group, key); Elmes & Radchenko, 1998: 218 (Taiwan species key); Wei, Zhou, He & Liu, 2001: 561 (China species key); Radchenko & Elmes, 2001: 262 (Himalaya species key); Czechowski, Radchenko & Czechowska, 2002: 141 (Poland species key).

Genus *POGONOMYRMEX*

Pogonomyrmex Mayr, 1888a: 169. Type-species: *Formica badia*, by subsequent designation of Wheeler, W.M. 1911b: 170.

Taxonomic history

Pogonomyrmex in Myrmicidae, Myrmicidae: Emery, 1877a: 81 ;

Pogonomyrmex in Myrmicidae: Cresson, 1887: 260.

Pogonomyrmex in Myrmicinae: Dalla Torre, 1893: 118.

Pogonomyrmex in Myrmicinae, Myrmicini: Forel, 1895a: 125; Emery, 1895e: 769; Forel, 1899: 61; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Emery, 1914a: 40; Forel, 1917: 240; Emery, 1921b: 44; Wheeler, W.M. 1922a: 660; all subsequent authors.

Junior synonyms of *POGONOMYRMEX*

Ephebomyrmex Wheeler, W.M. 1902b: 390 [as subgenus of *Pogonomyrmex*]. Type-species: *Pogonomyrmex naegelii*, by subsequent designation of Wheeler, W.M. 1911b: 163.

Taxonomic history

Ephebomyrmex in Myrmicinae, Myrmicini: Ashmead, 1905b: 383; Forel, 1917: 240; Emery, 1921b: 48; Wheeler, W.M. 1922a: 660; all subsequent authors.

Ephebomyrmex as subgenus of *Pogonomyrmex*: Wheeler, W.M. 1902b: 390; Wheeler, W.M. 1910d: 140; Forel, 1917: 240; Emery, 1921b: 48; Wheeler, W.M. 1922a: 660; Gallardo, 1932b: 94; Donisthorpe, 1943c: 643; Kusnezov, 1949b: 293; Creighton, 1950a: 132; Kusnezov, 1951a: 245; Smith, M.R. 1951: 794; Smith, M.R. 1958: 115; Kusnezov, 1964: 56; Kusnezov, 1956: 118; Smith, M.R. 1967: 351; Cole, 1968: 22; Smith, D.R. 1979: 1357; Snelling, 1982a: 108; MacKay, Dominguez, *et al.* 1985: 42.

Ephebomyrmex as genus: Creighton, 1957a: 54; Kusnezov, 1960b: 350; Kempf, 1972a: 106; Brown, 1973b: 180; Snelling, 1981: 395; Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 79; MacKay & Vinson, 1989: 14; Hölldobler & Wilson, 1990: 13; Taber, 1998: 146.

Ephebomyrmex as junior synonym of *Pogonomyrmex*: Lattke, 1991a: 305; Bolton, 1994: 106; Bolton, 1995b: 28; Fernández & Palacio, 1998: 1649.

Forelomyrmex Wheeler, W.M. 1913a: 80 [as subgenus of *Pogonomyrmex*].

Taxonomic history

[Replacement name for *Janetia* Forel, 1899: 61 (footnote); junior homonym of *Janetia* Kieffer, 1896: 236 (Diptera).]

Forelomyrmex as subgenus of *Pogonomyrmex*: Wheeler, W.M. 1913a: 80; Forel, 1917: 240; Emery, 1921b: 48; Wheeler, W.M. 1922a: 660; Donisthorpe, 1943c: 646; Kusnezov, 1951a: 245; Kempf, 1972a: 209.

Forelomyrmex as junior synonym of *Pogonomyrmex*: Brown, 1973b: 180 [provisional]; Snelling, 1981: 395; Lattke, 1991a: 305; Bolton, 1994: 106; Bolton, 1995b: 29; Fernández & Palacio, 1998: 1649.

Homonym replaced by *Forelomyrmex*

Janetia Forel, 1899: 61 (footnote) [as subgenus of *Pogonomyrmex*]. Type-species: *Pogonomyrmex (Janetia) mayri*, by monotypy.

Taxonomic history

[Junior homonym of *Janetia* Kieffer, 1896: 236 (Diptera).]

Genus references

Mayr, 1870b: 970 (all species key); Mayr, 1887: 608 (all species key); Cresson, 1887: 260 (U.S.A. catalogue); Dalla Torre, 1893: 118 (catalogue); Wheeler, W.M. 1902a: 97 (North America species key); Emery, 1921b: 44 (diagnosis, subgenera key, catalogue); Emery, 1921b: 48 (*P. (Epebomyrmex)* & *P. (Forelomyrmex)* diagnoses, catalogues); Gallardo, 1932b: 95 (Argentina species key); Cole, 1942: 364 (U.S.A., Utah species key); Kusnezov, 1949b: 301 (Argentina *P. (Epebomyrmex)* species key); Creighton, 1950a: 113 (North America species key); Kusnezov, 1951a: 254 (Argentina species key); Creighton, 1957a: 54 (North America *Epebomyrmex*); Gregg, 1963: 317 (U.S.A., Colorado species key); Cole, 1968: 21, 38, 155 (North America *Pogonomyrmex* & *P. (Epebomyrmex)* diagnoses, species revision, keys); Kempf, 1972a: 106, 206 (Neotropical *Epebomyrmex*, *Pogonomyrmex* catalogues); Snelling & Hunt, 1976: 72 (Chile species key); Smith, D.R. 1979: 1353 (North America catalogue); Allred, 1982: 442 (U.S.A., Utah species key); Snelling, 1982a: 104 (supplement to Cole, 1968 key); Snelling, 1982a: 108 (North America *P. (Epebomyrmex)* species key); MacKay, W.P., MacKay, E.E., Dominguez, *et al.*, 1985: 42 (Mexico species key); Wheeler, G.C. & Wheeler, J. 1986b: 26 (U.S.A., Nevada species key); Wheeler, G.C. & Wheeler, J. 1986b: 33 (U.S.A., Nevada *Epebomyrmex* species key); Shattuck, 1987: 175 (*P. occidentalis* complex, key); Taber, 1990: 307 (U.S.A. species complexes, phylogeny); Brandão, 1991: 342, 372 (Neotropical catalogue); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 339 (catalogue); Taber, 1998: 146, 147 (*Epebomyrmex*, *Pogonomyrmex* species key); Fernández & Palacio, 1998: 1657 (northern South America species key).

Genus *SECOSTRUMA* tribal transfer

Secostruma Bolton, 1988c: 264. Type-species: *Secostruma lethifera*, by original designation.

Taxonomic history

Secostruma in Myrmicinae, Tetramoriini: Bolton, 1988c: 264; Bolton, 1994: 106; Bolton, 1995b: 382.

Genus *incertae sedis* in Myrmicini**Genus **NOTHOMYRMICA***

**Nothomyrmica* Wheeler, W.M. 1915e: 60. Type-species: **Macromischa rudis*, by original designation.

Taxonomic history

[**Nothomyrmica* Wheeler, W.M. 1908b: 413, and Wheeler, W.M. 1910d: 167, *nomina nuda*.]

**Nothomyrmica* in Myrmicinae, Myrmicini: Wheeler, W.M. 1915e: 60; all subsequent authors except the following.

**Nothomyrmica* in Myrmicinae, Tetramoriini: Donisthorpe, 1943c: 675 (error).

**Nothomyrmica* in Myrmicinae, Leptothoracini: Dlussky & Fedoseeva, 1988: 79; Bolton, 1994: 106; Bolton, 1995b: 292.

Tribe TETRAMORIINI

Tetramorii Emery, 1895e: 770. Type-genus: *Tetramorium*.

Taxonomic history

Tetramoriini as tribe of Myrmicinae: Emery, 1895e: 770 [Tetramorii]; Wheeler, W.M. 1910d: 141 [Tetramorii]; Ashmead, 1905b: 383; Emery, 1914a: 38; Wheeler, W.M. 1915e: 69; Arnold, 1917: 271; Forel, 1917: 245; Wheeler, W.M. 1922a: 659; Emery, 1924: 271; all subsequent authors. [*Taxonomy*, p. 62.]

Junior synonyms of TETRAMORIINI

Anergatini Emery, 1914a: 41. Type-genus: *Anergates*.

Taxonomic history

Anergatini as subtribe of Solenopsidini: Emery, 1914a: 41; Forel, 1917: 243; Emery, 1922c: 204.

Anergatini as junior synonym of Tetramoriini: Bolton, 1994: 106.

Teleutomyrmini Kutter, 1950: 81. Type-genus: *Teleutomyrmex*.

Taxonomic history

Teleutomyrmini as subtribe of Tetramoriini: Kutter, 1950: 81.

Teleutomyrmini as junior synonym of Tetramoriini: Bolton, 1994: 106.

Genera: *Anergates*, *Decamorium*, *Rhopotromyrmex*, *Strongylognathus*, *Teleutomyrmex*, *Tetramorium*.

Tribe references

Wheeler, W.M. 1910d: 141 (diagnosis); Emery, 1914a: 38, 42 (diagnosis (in key), synoptic classification); Forel, 1917: 245 (synoptic classification); Wheeler, W.M. 1922a: 670 (genera key); Wheeler, W.M. 1922a: 893, 1030 (Afrotropical, Malagasy catalogues); Emery, 1924: 271 (diagnosis, genera key, catalogue); Wheeler, G.C. & Wheeler, J. 1976: 57 (larvae, review & synthesis); Bolton, 1976: 289 (diagnosis, revision of tribe, genera key); Kugler, C. 1978a: 442 (sting structure); Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1042 (census); Bolton, 1995b: 16 (catalogue); Sanetra & Buschinger, 2000: 95 (partial phylogeny).

Genera of Tetramoriini**Genus *ANERGATES***

Anergates Forel, 1874: 67 (see also p. 93). Type-species: *Myrmica atratula*, by monotypy.

Taxonomic history

Anergates in Myrmicinae: Emery, 1877a: 81 [Myrmicidae]; Emery & Forel, 1879: 457 [Myrmicidae]; Dalla Torre, 1893: 64.

Anergates in Myrmicinae, Formicoxenini: Forel, 1893a: 165.

Anergates in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Anergates in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Anergatini]; Forel, 1917: 243; Emery, 1922c: 205; Wheeler, W.M. 1922a: 663; all subsequent authors to the following; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism).

Anergates incertae sedis in Myrmicinae: Ettershank, 1966: 81.

Anergates in Myrmicinae, Tetramoriini: Bolton, 1976: 296; Smith, D.R. 1979: 1401; Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Sanetra & Buschinger, 2000: 108.

Genus references

André, 1882c: 278 (Europe & Algeria); Dalla Torre, 1893: 64 (catalogue); Emery, 1922c: 205 (diagnosis, catalogue); Creighton, 1950a: 241 (North America, review); Ettershank, 1966: 157 (diagnosis, review of genus, checklist); Bernard, 1967: 241 (diagnosis); Bolton, 1976: 296 (diagnosis, review of genus); Smith, D.R. 1979: 1401 (North America catalogue); Bolton, 1995a: 1047 (census); Bolton, 1995b: 63 (catalogue); Sanetra & Buschinger, 2000: 95 (phylogeny).

Genus *DECAMORIUM*

Decamorium Forel, 1913a: 121 [as subgenus of *Tetramorium*]. Type-species: *Tetramorium* (*Decamorium*) *decem*, by monotypy.

Taxonomic history

Decamorium in Myrmicinae, Tetramoriini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 289; all subsequent authors.

Decamorium as subgenus of *Tetramorium*: Forel, 1913a: 121; Arnold, 1917: 274.

Decamorium as genus: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, 1922a: 664, 906; Emery, 1924: 289; all subsequent authors.

Genus references

Arnold, 1917: 349 (diagnosis); Wheeler, W.M. 1922a: 906 (catalogue); Emery, 1924: 289 (diagnosis, catalogue); Bolton, 1976: 297 (diagnosis, all species revision, key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 168 (catalogue).

Genus *RHOPTROMYRMEX*

Rhoptromyrmex Mayr, 1901: 18. Type-species: *Rhoptromyrmex globinodis*, by subsequent designation of Wheeler, W.M. 1911b: 172.

Taxonomic history

Rhoptromyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Rhoptromyrmex in Myrmicinae, Tetramoriini: Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 245; Arnold, 1917: 351; Wheeler, W.M. 1922a: 664; Emery, 1924: 289; all subsequent authors.

Junior synonyms of *RHOPTROMYRMEX*

Hagioxenus Forel, 1910a: 8. Type-species: *Hagioxenus schmitzi*, by monotypy.

Taxonomic history

Hagioxenus in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 186; Wheeler, W.M. 1922a: 662; subsequent authors to the following.

Hagioxenus in Myrmicinae, *Monomorium* genus group: Ettershank, 1966: 81.

Hagioxenus as junior synonym of *Rhoptromyrmex*: Bolton, 1986: 2.

Acidomyrmex Emery, 1915f: 191 [as subgenus of *Rhoptromyrmex*]. Type-species: *Rhoptromyrmex wroughtonii*, by original designation.

Taxonomic history

Acidomyrmex in Myrmicinae, Tetramoriini: Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 290; all subsequent authors.

Acidomyrmex as genus: Wheeler, W.M. 1922a: 664, 672; Chapman & Capco, 1951: 173.

Acidomyrmex as subgenus of *Rhoptromyrmex*: Emery, 1915f: 191; Forel, 1917: 245; Emery, 1924: 290; Donisthorpe, 1943c: 619.

Acidomyrmex as junior synonym of *Rhoptromyrmex*: Brown, 1964b: 11; Bolton, 1976: 298; Bolton, 1986: 2.

Ireneella Donisthorpe, 1941e: 175. Type-species: *Ireneella papuensis* (junior synonym of *Rhoptromyrmex melleus*), by original designation.

Taxonomic history

Ireneella in Myrmicinae, Tetramoriini: Donisthorpe, 1941e: 175. Donisthorpe, 1943c: 653.

Ireneella incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).

Ireneella as junior synonym of *Rhoptromyrmex*: Bolton, 1976: 298; Bolton, 1986: 2.

Genus references

Arnold, 1917: 351 (diagnosis, South Africa species key); Wheeler, W.M. 1922a: 194, 908 (diagnosis, Afrotropical catalogue); Emery, 1922c: 186 (*Hagioxenus* diagnosis, catalogue); Emery, 1924: 289 (*Rhoptromyrmex* diagnosis, catalogue); Emery, 1924: 290 (*R. (Acidomyrmex)* diagnosis, catalogue); Chapman & Capco, 1951: 173, 174 (Asia *Acidomyrmex*, *Ireneella*, *Rhoptromyrmex* checklists); Brown, 1964b: 11 (diagnosis, all species revision, key); Bolton, 1976: 298 (diagnosis, all species key); Taylor & Brown, D.R. 1985: 86 (Australia catalogue); Bolton, 1986: 5 (diagnosis, review of genus, all species key); Taylor, 1987a: 67 (Australia checklist); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 377 (catalogue); Shattuck, 1999: 163 (Australia synopsis).

Genus *STRONGYLOGNATHUS*

Strongylognathus Mayr, 1853c: 389. Type-species: *Eciton testaceum*, by monotypy.

Taxonomic history

[Replacement name for *Myrmus* Schenck, 1853: 188; junior homonym of *Myrmus* Hahn, 1832: 81 (Hemiptera).]

Strongylognathus in Poneridae, Myrmicidae: Smith, F. 1858b: 134.

Strongylognathus in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Strongylognathus in Myrmicinae: Mayr, 1855: 430 [Myrmicidae]; Mayr, 1865: 21 [Myrmicidae]; Emery & Forel, 1879: 457 [Myrmicidae]; Dalla Torre, 1893: 129.

Strongylognathus in Myrmicinae, Tetramoriini: Emery, 1895e: 770; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 285; all subsequent authors.

Homonym replaced by *STRONGYLOGNATHUS*

Myrmus Schenck, 1853: 188. Type-species: *Myrmus emarginatus* (junior synonym of *Strongylognathus*

testaceus), by monotypy.

Taxonomic history

[Junior homonym of *Myrmus* Hahn, 1832: 81 (Hemiptera).]

Genus references

Smith, F. 1858b: 134 (diagnosis); Mayr, 1863: 454 (catalogue); Mayr, 1865: 21 (diagnosis); Forel, 1874: 71 (Switzerland species key); André, 1883a: 281 (Europe & Algeria species key); Dalla Torre, 1893: 129 (catalogue); Forel, 1900d: 278 (all species key); Ruzsky, 1905: 541 (Russian Empire species key); Emery, 1909d: 708 (Palaeartic species key); Emery, 1916b: 199 (Italy species key); Bondroit, 1918: 110 (France & Belgium species key); Emery, 1924: 285 (diagnosis catalogue); Arnol'di, 1933b: 598 (Russia species key); Kratochvíl, 1941: 87 (Central Europe species key); Novák & Sadil, 1941: 87 (Central Europe species key); Bernard, 1967: 237 (Western Europe species key); Baroni Urbani, 1969a: 157 (Western Europe *S. huberi* group revision, key); Bolton, 1976: 304 (diagnosis, review of genus); Kutter, 1977b: 159 (Switzerland species key); Arnol'di & Dlussky, 1978: 545 (former European U.S.S.R. species key); Collingwood, 1978: 86 (Iberian Peninsula species key); Gösswald, 1985: 312 (Germany species key); Agosti & Collingwood, 1987: 278 (Balkans species key); Dlussky, Soyunov & Zabelin, 1990: 209 (Turkmenistan species key); Radchenko, 1991: 89 (former U.S.S.R. species key); Atanasov & Dlussky, 1992: 156 (Bulgaria species key); Arakelian, 1994: 68 (Armenia species key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 395 (catalogue); Wu, J. & Wang, 1995: 95 (China species key); Seifert, 1996: 115 (Central Europe species key); Sanetra & Buschinger, 2000: 95 (phylogeny); Wei, Xu & He, 2001: 68 (China species key).

Genus TELEUTOMYRMEX

Teleutomyrmex Kutter, 1950: 82. Type-species: *Teleutomyrmex schneideri*, by original designation.

Taxonomic history

Teleutomyrmex in Myrmicinae, Tetramoriini: Kutter, 1950: 81 [subtribe Teleutomyrmini].

Genus references

Bernard, 1967: 239 (diagnosis); Bolton, 1976: 309 (diagnosis, review of genus); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 403 (catalogue); Sanetra & Buschinger, 2000: 95 (phylogeny).

Genus TETRAMORIUM

Tetramorium Mayr, 1855: 423. Type-species: *Formica caespitum*, by subsequent designation of Girard, 1879: 1016.

Taxonomic history

Tetramorium in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Tetramorium in Myrmicinae: Mayr, 1855: 423 [Myrmicidae]; Mayr, 1861: 61 [Myrmicidae]; Mayr, 1865: 20 [Myrmicidae]; Emery & Forel, 1879: 457 [Myrmicidae]; Dalla Torre, 1893: 130.

Tetramorium in Myrmicinae, Myrmicini: Forel, 1895a: 125; Forel, 1899: 52; Kusnezov, 1964: 57 (anachronism).

Tetramorium in Myrmicinae, Tetramoriini: Emery, 1895e: 770; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Arnold, 1917: 271; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 275; all subsequent authors.

Junior synonyms of TETRAMORIUM

Tetrogmus Roger, 1857: 10. Type-species: *Tetrogmus caldarius*, by monotypy.

Taxonomic history

Tetrogmus as subgenus of *Tetramorium*: Wheeler, W.M. 1910d: 141.

Tetrogmus as junior synonym of *Tetramorium*: Roger, 1862c: 297; all subsequent authors except the above; Bolton, 1976: 359; Bolton, 1980: 195.

Xiphomyrmex Forel, 1887: 385 [as subgenus of *Tetramorium*]. Type-species: *Tetramorium (Xiphomyrmex) kelleri*, by subsequent designation of Wheeler, W.M. 1911b: 175.

Taxonomic history

Xiphomyrmex in Myrmicinae: Dalla Torre, 1893: 130.

Xiphomyrmex in Myrmicinae, Myrmicini: Ashmead, 1905b: 383.

Xiphomyrmex in Myrmicinae, Tetramoriini: Emery, 1895e: 770; Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 286; all subsequent authors.

Xiphomyrmex as subgenus of *Tetramorium*: Dalla Torre, 1893: 130; Forel, 1899: 53; Forel, 1903: 700; Wheeler, W.M. 1910d: 141; Arnold, 1917: 274; Arnold, 1926: 277.

Xiphomyrmex as genus: Emery, 1895e: 770; Emery, 1896b: 183; Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 193; Emery, 1924: 286; Smith, M.R. 1938: 126; Donisthorpe, 1943d: 736; Creighton, 1950a: 293; Smith, M.R. 1951: 824; Chapman & Capco, 1951: 179; Bernard, 1953: 250; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 80 (anachronism).

Xiphomyrmex as junior synonym of *Tetramorium*: Bingham, 1903: 175; Bolton, 1976: 359; Bolton, 1980: 195; Bolton, 1994: 106.

Triglyphothrix Forel, 1890b: cvi. Type-species: *Triglyphothrix walshi*, by monotypy.

Taxonomic history

Triglyphothrix in Myrmicinae: Dalla Torre, 1893: 135.

Triglyphothrix in Myrmicinae, Tetramoriini: Emery, 1895e: 770; Ashmead, 1905b: 383; Wheeler, W.M.

1910d: 141; Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 272; all subsequent authors.

Triglyphothrix as subgenus of *Tetramorium*: Arnold, 1917: 274; Arnold, 1926: 272.

Triglyphothrix as genus: Forel, 1890b: cvi. Dalla Torre, 1893: 135; Emery, 1895e: 770; Forel, 1903: 703; Bingham, 1903: 171; Wheeler, W.M. 1910d: 141; Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 196; Emery, 1924: 272; Donisthorpe, 1943d: 734; Creighton, 1950a: 285; Smith, M.R. 1951: 823; Chapman & Capco, 1951: 178; Bernard, 1953: 248; Kempf, 1972a: 255; Bolton, 1976: 310; Smith, D.R. 1979: 1399; Wheeler, G.C. & Wheeler, J. 1985: 257; Taylor & Brown, D.R. 1985: 91.

Triglyphothrix as junior synonym of *Tetramorium*: Bolton, 1985: 247; Bolton, 1994: 106.

Atopula Emery, 1912b: 104. Type-species: *Atopomyrmex nodifer*, by original designation.

Taxonomic history

Atopula in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 242 [subtribe Podomyrmini]; all subsequent authors to Bolton, 1976: 359.

Atopula in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Atopula as subgenus of *Vollenhovia*: Emery, 1912c: 273.

Atopula as subgenus of *Terataner*: Arnold, 1952b: 129.

Atopula as genus: Emery, 1912b: 104; Emery, 1914a: 41; Wheeler, W.M. 1922a: 663; Emery, 1924: 242; Bernard, 1948: 177; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 79 (anachronism).

Atopula as junior synonym of *Tetramorium*: Bolton, 1976: 359; Bolton, 1980: 195; Bolton, 1994: 106.

Macromischoides Wheeler, W.M. 1920: 53. Type-species: *Macromischa aculeata*, by original designation.

Taxonomic history

Macromischoides in Myrmicinae, Leptothoracini: Wheeler, W.M. 1922a: 664; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism).

Macromischoides in Myrmicinae, Tetramorini: Santschi, 1924b: 207; all subsequent authors.

Macromischoides as genus: Wheeler, W.M. 1922a: 187; Santschi, 1924b: 206; Bernard, 1953: 248; Dlussky & Fedoseeva, 1988: 80 (anachronism).

Macromischoides as junior synonym of *Tetramorium*: Bolton, 1976: 359; Bolton, 1980: 196.

[*Macromichoides* Santschi, 1924b: 206, incorrect subsequent spelling.]

Lobomyrmex Kratochvíl, 1941: 84 [as subgenus of *Tetramorium*]. Type-species: *Tetramorium (Lobomyrmex) ferox silhavyi* (junior synonym of *Tetramorium ferox*), by monotypy.

Taxonomic history

Lobomyrmex as junior synonym of *Tetramorium*: Brown, 1973b: 181 [provisional]; Bolton, 1976: 359; Bolton, 1980: 196.

[*Sulcomyrmex* Kratochvíl, 1941: 84 [as subgenus of *Tetramorium*]. Unavailable name. Proposed without designation of type-species and therefore unavailable. Species included by Kratochvíl (1941) are all referable to *Tetramorium*: Bolton, 1976: 359.]

Apomyrmex Calilung, 2000: 66. Type-species: *Apomyrmex manobo*, by original designation. **Syn. n.** [Appendix 1.5, p. 269.]

Taxonomic history

Apomyrmex incertae sedis in Myrmicinae: Calilung, 2000: 66.

Genus references

Roger, 1863b: 26, 27 (catalogue); Mayr, 1863: 456 (catalogue); Mayr, 1865: 20 (diagnosis); Mayr, 1870b: 972 (all species key); André, 1883a: 285 (Europe & Algeria species key); Cresson, 1887: 261 (U.S.A. catalogue); Emery, 1893c: 214 (*Triglyphothrix* species key); Dalla Torre, 1893: 130, 135 (*Tetramorium*, *Triglyphothrix* catalogues); Forel, 1903: 700, 703 (India & Sri Lanka *Tetramorium*, *Triglyphothrix* species keys); Bingham, 1903: 172, 175 (India, Sri Lanka & Burma *Triglyphothrix*, *Tetramorium* species keys); Ruzsky, 1905: 517 (Russian Empire species key); Emery, 1909d: 695 (Palearctic species key); Emery, 1916b: 195 (Italy species key); Arnold, 1917: 271, 275, 334, 345 (diagnosis, South Africa *Tetramorium (Tetramorium)*, *T. (Triglyphothrix)*, *T. (Xiphomyrmex)* species keys); Bondroit, 1918: 106 (France & Belgium species key); Mann, 1919: 353 (Papuaia *Triglyphothrix* species key); Wheeler, W.M. 1922a: 187, 190, 193, 196 (*Macromischoides*, *Tetramorium*, *Xiphomyrmex*, *Triglyphothrix* diagnoses); Wheeler, W.M. 1922a: 886, 889, 893, 906, 909 (Afrotropical *Atopula*, *Macromischoides*, *Tetramorium*, *Xiphomyrmex*, *Triglyphothrix* catalogues); Wheeler, W.M. 1922a: 1030, 1031, 1032 (Malagasy *Tetramorium*, *Xiphomyrmex*, *Triglyphothrix* catalogues); Emery, 1924: 242 (*Atopula* diagnosis, catalogue); Emery, 1924: 272 (*Triglyphothrix* diagnosis, catalogue); Emery, 1924: 275 (diagnosis, catalogue); Emery, 1924: 286 (*Xiphomyrmex* diagnosis, catalogue); Santschi, 1924b: 210 (*Macromischoides* species key); Arnold, 1926: 241 (South Africa *Tetramorium (Tetramorium)* species key); Menozzi, 1933a: 74 (Israel species key); Finzi, 1936: 183 (Egypt species key); Smith, M.R. 1938: 127 (North America *Xiphomyrmex* species key); Kratochvíl, 1941: 84 (Central Europe species key); Novák & Sadil, 1941: 84 (Central Europe species key); Smith, M.R. 1943a: 2 (North America species key); Kratochvíl, Novák & Snoflák, 1944: 76, 95 (Central Europe species key); Creighton, 1950a: 290, 293 (North America *Tetramorium*, *Xiphomyrmex* species key); Chapman & Capco, 1951: 174, 178, 179 (Asia *Tetramorium*, *Triglyphothrix*, *Xiphomyrmex* checklists); Brown, 1958c: 27 (New Zealand species); Bernard, 1967: 227 (diagnosis, Western Europe species key); Kempf, 1972a: 249, 255 (Neotropical *Tetramorium*, *Triglyphothrix* catalogues); Alayo, 1974: 18 (Cuba species key); Tarbinsky, 1976: 105 (Kirgizstan species key); Bolton, 1976: 310, 314, 341 (*Triglyphothrix* diagnosis, Afrotropical, Oriental &

Malesian species revisions, keys); Bolton, 1976: 359 (*Tetramorium* diagnosis, review of genus, synonymy); Bolton, 1977: 72, 133 (Oriental & Malesian, Australia species revisions, keys); Kutter, 1977b: 150 (Switzerland species key); Arnol'di & Dlussky, 1978: 544 (former European U.S.S.R. species key); Collingwood, 1978: 86 (Iberian Peninsula species key); Collingwood, 1979: 82 (Fennoscandia & Denmark species key); Smith, D.R. 1979: 1399, 1400 (North America *Triglyphothrix*, *Tetramorium* catalogues); Bolton, 1979: 132, 159 (Malagasy, New World species revisions, keys); Bolton, 1980: 196, 205 (diagnosis, review of genus, Afrotropical species revision, key); Collingwood, 1985: 262 (Saudi Arabia species key); Gösswald, 1985: 311 (Germany species key); Taylor & Brown, D.R. 1985: 88 (Australia catalogue); Taylor, 1987a: 78 (Australia, New Caledonia & New Zealand checklist); Agosti & Collingwood, 1987: 277 (Balkans species key); Wang, M., Xiao & Wu, 1988: 264 (China species key); Radchenko & Arakelian, 1990: 371 (Crimea & Caucasus *T. ferox* complex, key); Dlussky, Soyunov & Zabelin, 1990: 197 (Turkmenistan species key); Atanasov & Dlussky, 1992: 149 (Bulgaria species key); Radchenko, 1992: 44 (former U.S.S.R. species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 33 (Japan species key); Arakelian, 1994: 60 (Armenia species key); Radchenko, 1994a: 109 (South Siberia species key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1053 (census); Bolton, 1995b: 403 (catalogue); Wu, J. & Wang, 1995: 79 (China species key); Collingwood & Agosti, 1996: 332 (Saudi Arabia species key); Seifert, 1996: 158 (Central Europe species key); Cagniant, 1997: 89 (Morocco species key); Radchenko, Czechowski & Czechowska, 1998: 107 (Poland species key); Collingwood & Prince, 1998: 17 (Portugal species key); Sanetra, Güsten & Schulz, 1999: 317 (Italy, species); Shattuck, 1999: 168 (Australia synopsis); Zhou, 2001: 100 (China, Guangxi species key); Czechowski, Radchenko & Czechowska, 2002: 145 (Poland species key).

Tribe PHEIDOLINI

Pheidolidae Emery, 1877a: 72. Type-genus: *Pheidole*.

Taxonomic history

Pheidolini as group of Myrmicidae: Emery, 1877a: 72 [Pheidolidae].

Pheidolini as subtribe of Myrmicini: Emery, 1924: 357.

Pheidolini as tribe of Myrmicinae: Forel, 1893a: 165 [Pheidolii]; Emery, 1914a: 35; Forel, 1917: 241; Arnold, 1920: 404; Emery, 1921b: 49; Wheeler, W.M. 1922a: 659; Brown, 1949a: 48; all subsequent authors. [*Taxonomy*, p. 63.]

Junior synonyms of PHEIDOLINI

Ocymyrmecini Emery, 1914a: 38 (diagnosis in key). Type-genus: *Ocymyrmex*.

Taxonomic history

Ocymyrmecini as tribe of Myrmicinae: Emery, 1914a: 38; Arnold, 1916: 194; Forel, 1917: 245; Wheeler, W.M. 1922a: 658; Emery, 1924: 270; Wheeler, G.C. & Wheeler, J. 1976: 57 [Ocymyrmecini]; Wheeler, G.C. & Wheeler, J. 1985: 257 [Ocymyrmecini]; Dlussky & Fedoseeva, 1988: 79 [Ocymyrmecini].

Ocymyrmecini as junior synonym of Pheidolini: Bolton & Marsh, 1989: 1281.

Lophomyrmecini Emery, 1914a: 41. Type-genus: *Lophomyrmex*.

Taxonomic history

Lophomyrmecini as subtribe of Pheidologetini: Emery, 1914a: 41; Forel, 1917: 243; Emery, 1924: 208.

Lophomyrmecini as junior synonym of Pheidologetini: Bolton, 1994: 106 [Pheidologetonini].

Lophomyrmecini as junior synonym of Pheidolini (implied by Rigato, 1994a: 51, but not stated): Bolton, 1995b: 12.

Anergatidini Emery, 1922c: 116. Type-genus: *Anergatides* (junior synonym of *Pheidole*).

Taxonomic history

Anergatidini as subtribe of Pheidolini: Emery, 1922c: 116.

Anergatidini as junior synonym of Pheidolini: Bolton, 1994: 106.

Aphaenogastrini Enzmann, J. 1947b: 147. Type-genus: *Aphaenogaster*.

Taxonomic history

Aphaenogastrini as tribe of Myrmicinae: Enzmann, J. 1947b: 147.

Aphaenogastrini as junior synonym of Pheidolini: Brown, 1949a: 48.

Genera (extant): *Anisopheidole*, *Aphaenogaster*, *Chimaeridris*, *Goniomma*, *Kartidris*, *Lophomyrmex*, *Messor*, *Ocymyrmex*, *Oxyopomyrmex*, *Pheidole*.

Genera (extinct) *incertae sedis*: **Lonchomyrmex*, **Paraphaenogaster*.

Tribe references

Emery, 1914a: 35, 38; 40, 41 (tribe diagnoses (in key); synoptic classifications); Forel, 1917: 241, 243 (synoptic classification); Emery, 1921b: 49 (Pheidolini diagnosis, genera key, catalogue); Wheeler, W.M. 1922a: 670 (genera key); Wheeler, W.M. 1922a: 802, 891 (Afrotropical Pheidolini, Ocymyrmecini catalogues); Wheeler, W.M. 1922a: 1016 (Malagasy catalogue); Emery, 1924: 270 (Ocymyrmecini diagnosis, catalogue); Kusnezov, 1952b: 9 (genera key); Wheeler, G.C. & Wheeler, J. 1976: 53, 57 (Pheidolini, Ocymyrmecini larvae, review & synthesis); Kugler, C. 1978a: 460 (sting structure); Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 14 (catalogue).

Genera of Pheidolini

Genus *ANISOPHEIDOLE* tribal transfer

Anisopheidole Forel, 1914b: 616 (footnote) [as subgenus of *Pheidole*]. Type-species: *Pheidole froggatti*

(junior synonym of *Anisopheidole antipodum*), by monotypy.

Taxonomic history

[*Anisopheidole* also described as new by Forel, 1915a: 61.]

Anisopheidole in Myrmicinae, Pheidolini: Forel, 1917: 241; Emery, 1921b: 83; all subsequent authors to the following.

Anisopheidole in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Anisopheidole in Myrmicinae, Pheidologetini: Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106 [Pheidologetonini].

Anisopheidole as subgenus of *Pheidole*: Forel, 1914b: 616; Emery, 1915f: 190; Forel, 1917: 241; Emery, 1921b: 83; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.

Anisopheidole as genus: Ettershank, 1966: 129; Taylor & Brown, D.R. 1985: 54.

Genus references

Emery, 1921b: 83 (diagnosis, catalogue); Ettershank, 1966: 129 (diagnosis, review of genus, checklist); Taylor & Brown, D.R. 1985: 54 (Australia catalogue); Taylor, 1987a: 7 (Australia checklist); Bolton, 1995a: 1048 (census); Bolton, 1995b: 63 (catalogue); Shattuck, 1999: 125 (Australia synopsis).

Genus **APHAENOGASTER**

Aphaenogaster Mayr, 1853b: 107. Type-species: *Aphaenogaster sardoa*, by subsequent designation of Bingham, 1903: 270.

Taxonomic history

Aphaenogaster in Myrmicinae: Mayr, 1855: 466 [Myrmicidae]; Mayr, 1865: 19 [Myrmicidae]; Emery & Forel, 1879: 461 [Myrmicidae]; Cresson, 1887: 260 [Myrmicidae]; Dalla Torre, 1893: 98.

Aphaenogaster in Myrmicinae, Myrmicini: Forel, 1891b: 166; Forel, 1895a: 129; Emery, 1895e: 769; Forel, 1899: 58; Wheeler, W.M. 1910d: 140; Wheeler, W.M. 1915e: 53; Santschi, 1932: 13; Kempf, 1972a: 22 (anachronism).

Aphaenogaster in Myrmicinae, Aphaenogastrini: Enzmann, J. 1947b: 147.

Aphaenogaster in Myrmicinae, Pheidolini: Emery, 1877a: 81 [Pheidolidae]; Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 55 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; Brown, 1949a: 48; Chapman & Capco, 1951: 131; all subsequent authors.

Aphaenogaster as junior synonym of *Atta*: Mayr, 1863: 395.

Aphaenogaster as subgenus of *Stenamma*: Emery, 1895b: 298; Emery, 1895e: 769; Forel, 1903: 693.

Aphaenogaster as genus: Emery, 1908c: 309; all subsequent authors.

Junior synonyms of **APHAENOGASTER**

Deromyrma Forel, 1913b: 350 [as subgenus of *Aphaenogaster*]. Type-species: *Aphaenogaster (Ischnomyrmex) swammerdami*, by original designation.

Taxonomic history

[*Deromyrma* also described as new by Forel, 1913d: 49.]

Deromyrma as subgenus of *Aphaenogaster*: Forel, 1913b: 350; Forel, 1913d: 49; Forel, 1917: 241; Emery, 1921b: 64; Wheeler, W.M. 1922a: 680; all subsequent authors to the following.

Deromyrma as junior synonym of *Aphaenogaster*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1359; Bolton, 1982: 364.

Planimyrmica Viehmeyer, 1914c: 604 [as subgenus of *Aphaenogaster*]. Type-species: *Stenamma (Ischnomyrmex) lorai*, by original designation.

Taxonomic history

Planimyrmica as subgenus of *Aphaenogaster*: Viehmeyer, 1914c: 604; Forel, 1917: 241; Emery, 1921b: 65; Wheeler, W.M. 1922a: 680; all subsequent authors to the following.

Planimyrmica as junior synonym of *Aphaenogaster*: Brown, 1973b: 184 [provisional]; Smith, D.R. 1979: 1359; Bolton, 1982: 364.

Attomyrma Emery, 1915d: 70 [as subgenus of *Aphaenogaster*]. Type-species: *Formica subterranea*, by original designation.

Taxonomic history

Attomyrma as subgenus of *Aphaenogaster*: Emery, 1915d: 70; Emery, 1916b: 129; Emery, 1921b: 56; all subsequent authors to the following.

Attomyrma as junior synonym of *Aphaenogaster*: Brown, 1973b: 178 [provisional]; Smith, D.R. 1979: 1359; Bolton, 1982: 364.

Novomessor Emery, 1915d: 73. Type-species: *Aphaenogaster (Ischnomyrmex) cockerelli*, by original designation.

Taxonomic history

Novomessor in Myrmicinae, Pheidolini: Forel, 1917: 241; Emery, 1921b: 66 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; all subsequent authors except the following.

Novomessor in Myrmicinae, Myrmicini: Donisthorpe, 1943c: 675; Kempf, 1972a: 166.

Novomessor as genus: Wheeler, W.M. & Creighton, 1934: 343; Creighton, 1950a: 155; Hölldobler, Stanton & Engel, 1976: 32.

Novomessor as junior synonym of *Aphaenogaster*: Brown, 1974b: 47; Bolton, 1982: 364 (discussion pp. 339-341).

Nystalomyrma Wheeler, W.M. 1916e: 215 [as subgenus of *Aphaenogaster*]. Type-species: *Myrmica longiceps*, by original designation.

Taxonomic history

Nystalomyrma as subgenus of *Aphaenogaster*: Wheeler, W.M. 1916: 215; Emery, 1921b: 61; Wheeler, W.M. 1922a: 680; Donisthorpe, 1943c: 676.

Nystalomyrma as junior synonym of *Aphaenogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1359; Bolton, 1982: 364.

Brunella Forel, 1917: 234. Type-species: *Aphaenogaster belti*, by monotypy.

Taxonomic history

Brunella in Myrmicinae, Leptothoracini: Forel, 1917: 245.

Brunella in Myrmicinae, Myrmecini: Wheeler, W.M. 1922a: 663; Emery, 1924: 242; Donisthorpe, 1943c: 629.

Brunella incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (anachronism, incomprehensible entry).

Brunella incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 80 (anachronism).

Brunella as junior synonym of *Atopula*: Emery, 1924: 242; Donisthorpe, 1943c: 629.

Brunella as junior synonym of *Aphaenogaster*: Bolton, 1982: 364; Bolton, 1994: 106.

**Sinaphaenogaster* Zhang, 1989: 266 [as subgenus of *Aphaenogaster*]. Type-species: **Paraphaenogaster shanwangensis*, by original designation. Syn. n. [Appendix 1.11, p. 273.]

Genus references

Mayr, 1855: 466 (diagnosis); Roger, 1863b: 29 (catalogue); Mayr, 1865: 19 (diagnosis); Mayr, 1867a: 92 (diagnosis); André, 1874: 195 (Europe species key); Forel, 1874: 74 (Switzerland species key); André, 1883b: 348 (Europe & Algeria species key); Mayr, 1886c: 443 (U.S.A. species key); Cresson, 1887: 260 (U.S.A. catalogue); Emery, 1888a: 531 (*A. (Ischnomyrmex)* species key); Nasonov, 1889: 74 (Russia species key); Dalla Torre, 1893: 98 (catalogue); Forel, 1903: 693 (India & Sri Lanka species key); Bingham, 1903: 270 (India, Sri Lanka & Burma species key); Ruzsky, 1905: 714 (Russian Empire species key); Emery, 1908c: 310 (Palearctic species key); Bondroit, 1910: 495 (Belgium species key); Emery, 1916b: 132 (Italy species key); Wheeler, W.M. 1916g: 585 (U.S.A., Connecticut species key); Wheeler, W.M. 1916e: 213 (Australia species); Bondroit, 1918: 156 (France & Belgium species key); Emery, 1921b: 55 (diagnosis, subgenera key, catalogue); Emery, 1921b: 56, 61, 64, 65 (*A. (Atomyrma, Nystalomyrma, Deromyrma, Planimyrmex)* diagnoses, catalogues); Emery, 1921b: 66 (*Novomessor* diagnosis, catalogue); Wheeler, W.M. 1922a: 680 (subgenera key); Wheeler, W.M. 1922a: 1016, 1029 (*Aphaenogaster, Brunella* catalogues); Wheeler, W.M. & Creighton, 1934: 348 (*Novomessor* species key); Menozzi, 1939: 296 (Himalaya & Tibet species key); Stitz, 1939: 112 (Germany species key); Kratochvíl, 1941: 81 (Central Europe species key); Novák & Šadil, 1941: 81 (Central Europe species key); Cole, 1942: 363 (U.S.A., Utah species key); Buren, 1944: 284 (U.S.A., Iowa species key); Creighton, 1950a: 140, 155 (North America *Aphaenogaster, Novomessor* species keys); Chapman & Capco, 1951: 131 (Asia checklist); Smith, M.R. 1961: 218 (New Guinea species key); Gregg, 1963: 336 (U.S.A., Colorado species key); Bernard, 1967: 128 (diagnosis, Western Europe species key); Kempf, 1972a: 22, 166 (Neotropical *Aphaenogaster (Deromyrma, Novomessor)* catalogues); Arnol'di, 1976b: 1023 (former U.S.S.R. species key); Kutter, 1977b: 77 (Switzerland species key); Arnol'di & Dlussky, 1978: 536 (former European U.S.S.R. species key); Collingwood, 1978: 79 (Iberian Peninsula species key); Smith, D.R. 1979: 1359 (North America catalogue); Allred, 1982: 439 (U.S.A., Utah species key); Taylor & Brown, D.R. 1985: 54 (Australia catalogue); Gösswald, 1985: 298 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 35 (U.S.A., Nevada species key); Taylor, 1987a: 8 (Australia checklist); Agosti & Collingwood, 1987: 269 (Balkans species key); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Dlussky, Soyunov & Zabelin, 1990: 211 (Turkmenistan species key); Brandão, 1991: 326 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1992: 15 (Japan species key); Atanasov & Dlussky, 1992: 107 (Bulgaria species key); Schulz, A. 1994: 425 (*A. (Atomyrma)*, partial key); Arakelian, 1994: 29 (Armenia species key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1048 (census); Bolton, 1995b: 68 (catalogue); Wu, J. & Wang, 1995: 110 (China species key); Umphrey, 1996: 557 (North America *A. fulva* complex key); Cagniant, 1996a: 67 (Morocco species key); Seifert, 1996: 156 (Central Europe species key); Collingwood & Prince, 1998: 13 (Portugal species key); Shattuck, 1999: 126 (Australia synopsis); Park & Kim, 2000: 108 (Korea species key); Zhou, 2001: 142 (China, Guangxi species key).

Genus CHIMAERIDRIS

Chimaeridris Wilson, 1989: 63. Type-species: *Chimaeridris boltoni*, by original designation.

Taxonomic history

Chimaeridris in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106; Bolton, 1995b: 145.

Genus GONIOMMA

Goniomma Emery, 1895b: 298 [as subgenus of *Stenamma*]. Type-species: *Aphaenogaster blanci*, by subsequent designation of Wheeler, W.M. 1911b: 164.

Taxonomic history

Goniomma in Myrmicinae, Myrmicini: Emery, 1895e: 769.

Goniomma in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 74 [subtribe *Stenammini*]; Wheeler, W.M. 1922a: 661; all subsequent authors.

Goniomma as subgenus of *Stenamma*: Emery, 1895e: 769.

Goniomma as subgenus of *Oxyopomyrmex*: Wheeler, W.M. 1910d: 140.

Goniomma as genus: Emery, 1908d: 460; Forel, 1917: 241; Emery, 1921b: 74; Wheeler, W.M. 1922a: 661; all subsequent authors.

Genus references

Emery, 1921b: 74 (diagnosis, catalogue); Santschi, 1929b: 145 (all species key); Bernard, 1967: 154 (diagnosis, Western Europe species key); Collingwood, 1978: 80 (Iberian Peninsula species key); Acosta Salmerón, 1982: 7 (partial revision); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1049 (census); Bolton, 1995b: 211 (catalogue); Collingwood & Prince, 1998: 14 (Portugal species key).

Genus *KARTIDRIS*

Kartidris Bolton, 1991: 10. Type-species: *Kartidris nyos*, by original designation.

Taxonomic history

Kartidris in Myrmicinae, Pheidolini: Bolton, 1991: 10; Bolton, 1994: 106; Bolton, 1995a: 1050; Bolton, 1995b: 219.

Genus references

Bolton, 1991: 12 (all species key); Xu, 1999: 134 (all species key).

Genus *LOPHOMYRMEX*

Lophomyrmex Emery, 1892a: 114. Type-species: *Oecodoma quadrispinosa*, by monotypy.

Taxonomic history

Lophomyrmex in Myrmicinae: Dalla Torre, 1893: 74.

Lophomyrmex in Myrmicinae, Solenopsidini: Emery, 1895e: 770; Wheeler, W.M. 1910d: 141; Wheeler, W.M. 1922a: 663.

Lophomyrmex in Myrmicinae, Myrmicini: Ashmead, 1905b: 383.

Lophomyrmex in Myrmicinae, *Pheidologeton* genus group: Ettershank, 1966: 81; Bolton, 1987: 265.

Lophomyrmex in Myrmicinae, Pheidologetini: Emery, 1914a: 41 [subtribe Lophomyrmicini]; Forel, 1917: 243; Emery, 1924: 208; Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106 [Pheidologetonini].

Lophomyrmex in Myrmicinae, Pheidolini: Rigato, 1994a: 50.

Lophomyrmex as junior synonym of *Monomorium*: Dlussky, 1997: 625 (error).

Genus references

Dalla Torre, 1893: 74 (catalogue); Emery, 1893c: 192 (all species key); Forel, 1903: 695 (India & Sri Lanka species key); Bingham, 1903: 195 (India, Sri Lanka & Burma species key); Emery, 1924: 208 (diagnosis, catalogue); Chapman & Capco, 1951: 155 (Asia checklist); Ettershank, 1966: 132 (diagnosis, review of genus, checklist); Rigato, 1994a: 47 (diagnosis, all species revision, key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 248 (catalogue).

Genus *MESSOR*

Messor Forel, 1890a: lxviii [as subgenus of *Aphaenogaster*]. Type-species: *Formica barbara*, by subsequent designation of Bingham, 1903: 277.

Taxonomic history

Messor in Myrmicinae: Dalla Torre, 1893: 98.

Messor in Myrmicinae, Myrmicini: Emery, 1895e: 769; Forel, 1899: 59; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140.

Messor in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Arnold, 1920: 404; Emery, 1921b: 68 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; all subsequent authors.

Messor as subgenus of *Aphaenogaster*: Forel, 1890a: lxviii; Dalla Torre, 1893: 98; Forel, 1899: 59.

Messor as subgenus of *Stenamma*: Emery, 1895b: 298; Emery, 1895e: 769; Forel, 1903: 693.

Messor as genus: Bingham, 1903: 277; Ruzsky, 1905: 726; Emery, 1908d: 437; Wheeler, W.M. 1910d: 140; Forel, 1917: 241; Bondroit, 1918: 149; Arnold, 1920: 404; Emery, 1921b: 68; Wheeler, W.M. 1922a: 661; all subsequent authors.

Junior synonyms of *MESSOR*

Cratomyrmex Emery, 1892c: 572. Type-species: *Cratomyrmex regalis*, by monotypy.

Taxonomic history

Cratomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Emery, 1914a: 40; Forel, 1917: 240; Emery, 1921b: 43; Wheeler, W.M. 1922a: 660; Donisthorpe, 1943c: 635.

Cratomyrmex as subgenus of *Messor*: Santschi, 1920a: 378.

Cratomyrmex as genus: Emery, 1892c: 572; Wheeler, W.M. 1910d: 140; Forel, 1917: 240; Emery, 1921b: 43; Wheeler, W.M. 1922a: 660, 802; Bernard, 1971: 6.

Cratomyrmex as junior synonym of *Messor*: Emery, 1924: 357; Donisthorpe, 1943c: 635; Bolton, 1982: 338; Hölldobler & Wilson, 1990: 14; Bolton, 1994: 106.

Veromessor Forel, 1917: 235 [as subgenus of *Novomessor*]. Type-species: *Aphaenogaster andrei*, by subsequent designation of Emery, 1921b: 67.

Taxonomic history

Veromessor in Myrmicinae, Pheidolini: Wheeler, W.M. 1922a: 661; all subsequent authors.

Veromessor as subgenus of *Novomessor*: Forel, 1917: 235; Emery, 1921b: 67; Donisthorpe, 1943d: 735.

Veromessor as genus: Wheeler, W.M. 1922a: 661; Wheeler, W.M. & Creighton, 1934: 354; Creighton, 1950a: 157; Smith, M.R. 1951: 799; Kusnezov, 1952b: 10 (in key); Kempf, 1972a: 257; Smith,

D.R. 1979: 1364.

Veromessor as junior synonym of *Messor*: Bolton, 1982: 338.

Lobognathus Enzmann, J. 1947b: 152 [as subgenus of *Veromessor*]. Erroneous entry for *Veromessor lobognathus* and hence junior synonym of *Veromessor*: Brown, 1949a: 49.

[*Sphaeromessor* Bernard, 1985: 48. Unavailable name. Proposed without designation of type-species and therefore unavailable. Species included by Bernard (1985) are all referable to *Messor*: Bolton, 1995b: 46.]

Genus references

Forel, 1903: 693 (India & Sri Lanka species key); Bingham, 1903: 278 (India, Sri Lanka & Burma species key); Ruzsky, 1905: 726 (Russian Empire species key); Emery, 1908d: 437 (Palearctic species key); Emery, 1916b: 143 (Italy species key); Bondroit, 1918: 149 (France & Belgium species key); Arnold, 1920: 404 (diagnosis); Emery, 1921b: 43 (*Cratomyrmex* diagnosis, catalogue); Emery, 1921b: 67 (*Veromessor* diagnosis, catalogue); Emery, 1921b: 68 (diagnosis, catalogue); Wheeler, W.M. 1922a: 802 (Afrotropical *Cratomyrmex*, *Messor* catalogues); Santschi, 1927a: 247 (*M. instabilis* group key); Kuznetsov-Ugamsky, 1927a: 89 (Central Asia species key); Kuznetsov-Ugamsky, 1929b: 4 (Central Asia species key); Finzi, 1929: 77 (Italy species key); Menozzi, 1933a: 56 (Israel species key); Wheeler, W.M. & Creighton, 1934: 360 (*Veromessor* species key); Finzi, 1936: 160 (Egypt species key); Novák & Sadil, 1941: 82 (Central Europe species key); Creighton, 1950a: 158 (North America *Veromessor* species key); Chapman & Capco, 1951: 136 (Asia checklist); Bernard, 1955a: 360 (Mediterranean *M. structor* group key); Smith, M.R. 1956: 36 (U.S.A. *Veromessor* species key); Bernard, 1967: 137 (diagnosis, Western Europe species key); Kempf, 1972a: 257 (Neotropical *Veromessor* catalogue); Tarbinsky, 1976: 50 (Kirgizstan species key); Arnol'di, 1977: 1640 (former U.S.S.R. species key); Arnol'di & Dlussky, 1978: 537 (former European U.S.S.R. species key); Collingwood, 1978: 80 (Iberian Peninsula species key); Smith, D.R. 1979: 1364 (North America *Veromessor* catalogue); Bolton, 1982: 338 (diagnosis, review of genus, Afrotropical species revision, key); Collingwood, 1985: 248 (Saudi Arabia species key); Wheeler, G.C. & Wheeler, J. 1986b: 38 (U.S.A., Nevada *Veromessor* species key); Agosti & Collingwood, 1987: 270 (Balkans species key); Dlussky, Soyunov & Zabelin, 1990: 215 (Turkmenistan species key); Casevitz-Weulersse, 1990a: 156 (Corsica species key); Atanasov & Dlussky, 1992: 113 (Bulgaria species key); Arakelian, 1994: 33 (Armenia species key); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 252 (catalogue); Collingwood & Agosti, 1996: 314 (Saudi Arabia species key); Cagniant & Espadaler, 1998: 419 (Morocco species key); Collingwood & Prince, 1998: 14 (Portugal species key).

Genus OCYMYRMEX

Ocymyrmex Emery, 1886: 364. Type-species: *Ocymyrmex barbiger*, by monotypy.

Taxonomic history

Ocymyrmex in Myrmicinae: Dalla Torre, 1893: 72.

Ocymyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Ocymyrmex in Myrmicinae, *Ocymyrmecini*: Emery, 1914a: 41; Arnold, 1916: 194; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 270; all subsequent authors to the following.

Ocymyrmex in Myrmicinae, Pheidolini: Bolton & Marsh, 1989: 1281; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106

Genus references

Emery, 1892a: 116 (all species key); Arnold, 1916: 194 (diagnosis, South Africa species key); Wheeler, W.M. 1922a: 891 (catalogue); Emery, 1924: 270 (diagnosis, catalogue); Bolton, 1981b: 260 (diagnosis, all species revision, key); Bolton & Marsh, 1989: 1267 (diagnosis, revised key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 294 (catalogue).

Genus OXYOPOMYRMEX

Oxyopomyrmex André, 1881: 72. Type-species: *Oxyopomyrmex oculatus*, by monotypy.

Taxonomic history

Oxyopomyrmex in Myrmicinae: Dalla Torre, 1893: 108.

Oxyopomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140.

Oxyopomyrmex in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1921b: 75 [subtribe Stenammini]; Wheeler, W.M. 1922a: 661; all subsequent authors.

Genus references

André, 1883b: 379 (Europe & Algeria species); Dalla Torre, 1893: 108 (catalogue); Emery, 1921b: 75 (diagnosis, catalogue); Bernard, 1967: 155 (diagnosis); Kugler, C. 1979a: 258 (sting structure); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 302 (catalogue).

Genus PHEIDOLE

Pheidole Westwood, 1839: 219. Type-species: *Atta providens*, by monotypy.

Taxonomic history

Pheidole in Poneridae, Attidae: Smith, F. 1858b: 172.

Pheidole in Attidae: Smith, F. 1860a: 74; Smith, F. 1862a: 49.

Pheidole in Myrmicidae: Smith, F. 1871: 331; Cresson, 1887: 262.

Pheidole in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Pheidole in Myrmicinae: Mayr, 1861: 69 [Myrmicidae]; Mayr, 1865: 22 [Myrmicidae]; Emery & Forel,

1879: 463 [Myrmicidae]; Dalla Torre, 1893: 88.

Pheidole in Myrmicinae, Myrmicini: Forel, 1895a: 127; Emery, 1895e: 769; Forel, 1899: 64; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 139; Kempf, 1972a: 183 (anachronism).

Pheidole in Myrmicinae, Pheidolini: Forel, 1893a: 165; Emery, 1914a: 40; Forel, 1917: 241; Arnold, 1920: 414; Emery, 1921b: 77; Wheeler, W.M. 1922a: 661; all subsequent authors except Kempf, 1972a: 183, above.

Junior synonyms of *PHEIDOLE*

Oecophthora Heer, 1852: 15. Type-species: *Oecophthora pusilla* (junior synonym of *Pheidole megacephala*), by monotypy.

Taxonomic history

Oecophthora in Myrmicinae: Mayr, 1855: 453 [Myrmicidae].

Oecophthora as junior synonym of *Pheidole*: Smith, F. 1858a: 282; Smith, F. 1858b: 172; Roger, 1863b: 30.

Ischnomyrmex Mayr, 1862: 738. Type-species: *Myrmica longipes*, by monotypy.

Taxonomic history

Ischnomyrmex in Myrmicinae: Mayr, 1865: 18 [Myrmicidae]; Dalla Torre, 1893: 98.

Ischnomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140.

Ischnomyrmex in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 113; Wheeler, W.M. 1922a: 661; all subsequent authors.

Ischnomyrmex as junior synonym of *Aphaenogaster*: Emery & Forel, 1879: 461; Bingham, 1903: 270.

Ischnomyrmex as subgenus of *Aphaenogaster*: Forel, 1891b: 166; Dalla Torre, 1893: 98; Forel, 1899: 59; Emery, 1908c: 313; Wheeler, W.M. 1910d: 140.

Ischnomyrmex as subgenus of *Stenamma*: Emery, 1895b: 298; Emery, 1895e: 769; Forel, 1902c: 439; Forel, 1903: 693.

Ischnomyrmex as subgenus of *Pheidole*: Forel, 1913d: 49.

Ischnomyrmex as genus: Mayr, 1862: 738; Emery, 1914a: 40; Viehmeyer, 1914c: 601; Forel, 1917: 241; Wheeler, W.M. 1922a: 661; Emery, 1922c: 113. Stitz, 1911: 367; Kusnezov, 1952b: 10 (in key).

Ischnomyrmex as junior synonym of *Pheidole*: Brown, 1973b: 181 [provisional]; Smith, D.R. 1979: 1365; Snelling, 1981: 395.

Leptomyrma Motschoulsky, 1863: 17. Type-species: *Leptomyrma gracilipes*, by monotypy.

Taxonomic history

Leptomyrma in Myrmicidae: Smith, F. 1871: 329.

Leptomyrma as junior synonym of *Pheidole*: Emery, 1892b: 166; all subsequent authors.

Pheidolacanthinus Smith, F. 1865: 75. Type-species: *Pheidolacanthinus armatus* (junior synonym of *Pheidole quadrispinosus*), by monotypy.

Taxonomic history

Pheidolacanthinus in Myrmicidae: Smith, F. 1871: 333.

Pheidolacanthinus in Myrmicinae: Dalla Torre, 1893: 98.

Pheidolacanthinus as subgenus of *Pheidole*: Emery, 1915f: 190; Forel, 1917: 241; Emery, 1921b: 81; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.

Pheidolacanthinus as junior synonym of *Pheidole*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1365; Snelling, 1981: 395.

Ceratopheidole Pergande, 1896: 889 [as subgenus of *Pheidole*]. Type-species: *Pheidole (Ceratopheidole) granulata*, by monotypy.

Taxonomic history

Ceratopheidole in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 112; Wheeler, W.M. 1922a: 661; all subsequent authors.

Ceratopheidole as genus: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 112; Wheeler, W.M. 1922a: 661; Chapman & Capco, 1951: 135; Wu, J. & Wang, 1995: 104 (anachronism).

Ceratopheidole as subgenus of *Pheidole*: Pergande, 1896: 889; Kempf, 1972a: 183.

Ceratopheidole as junior synonym of *Pheidole*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1365; Snelling, 1981: 395; Wilson, 2003: 6.

Epipheidole Wheeler, W.M. 1903c: 664. Type-species: *Epipheidole inquilina*, by monotypy.

Taxonomic history

[*Epipheidole* also described as new by Wheeler, W.M. 1904a: 14.]

Epipheidole in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Epipheidole in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 140.

Epipheidole in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 114; Wheeler, W.M. 1922a: 661; Creighton, 1950a: 192.

Epipheidole as junior synonym of *Pheidole*: Cole, 1965: 174; Smith, D.R. 1979: 1366.

Phidole Bingham, 1903: 220, unjustified emendation of *Pheidole*.

Taxonomic history

Phidole as junior synonym of *Pheidole*: Wheeler, 1922a: 806.

Sympheidole Wheeler, W.M. 1904a: 7. Type-species: *Sympheidole elecebra*, by monotypy.

Taxonomic history

Sympheidole in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 140.

Sympheidole in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

- Sympheidole* in Myrmicinae, Pheidolini: Emery, 1914a: 40; Forel, 1917: 241; Emery, 1922c: 115; Wheeler, W.M. 1922a: 661; all subsequent authors to the following.
- Sympheidole* as junior synonym of *Pheidole*: Brown, 1973b: 185 [provisional]; Smith, D.R. 1979: 1365; Snelling, 1981: 395; Wilson, 2003: 6.
- Phidola* Schulz, W.A. 1906: 155, unjustified emendation of *Pheidole*.
- Taxonomic history**
- Phidola* as junior synonym of *Pheidole*: Smith, D.R. 1979: 1365.
- Allophheidole* Forel, 1912c: 237 [as subgenus of *Pheidole*]. Type-species: *Pheidole kingi* (junior synonym of *Pheidole tepicana*), by subsequent designation of Wheeler, W.M. 1913a: 79.
- Taxonomic history**
- Allophheidole* as subgenus of *Pheidole*: Forel, 1912c: 237; Forel, 1917: 241.
- Allophheidole* as junior synonym of *Pheidole*: Emery, 1915f: 190; Emery, 1921b: 84; Smith, D.R. 1979: 1366.
- Decapheidole* Forel, 1912c: 237 [as subgenus of *Pheidole*]. Type-species: *Pheidole perpusilla*, by subsequent designation of Wheeler, W.M. 1913a: 80.
- Taxonomic history**
- Decapheidole* in Myrmicinae, Pheidolini: Wheeler, W.M. 1922a: 661.
- Decapheidole* as genus: Wheeler, W.M. 1922a: 661; Borgmeier, 1927b: 78.
- Decapheidole* as subgenus of *Pheidole*: Forel, 1912c: 237; Forel, 1917: 241; Emery, 1922c: 112; Kempf, 1972a: 183.
- Decapheidole* as junior synonym of *Pheidole*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 2003: 6.
- Isopheidole* Forel, 1912g: 765 [as subgenus of *Pheidole*]. Type-species: *Myrmica longipes*, by monotypy.
- Taxonomic history**
- Isopheidole* as junior synonym of *Ischnomyrmex*: Forel, 1913b: 350 (in text); Forel, 1913d: 49; Emery, 1922c: 113; Wheeler, W.M. 1922a: 680 (in key).
- Elasmpheidole* Forel, 1913d: 43 [as subgenus of *Pheidole*]. Type-species: *Pheidole aberrans*, by subsequent designation of Emery, 1915f: 190.
- Taxonomic history**
- Elasmpheidole* as subgenus of *Pheidole*: Forel, 1913d: 43; Emery, 1915f: 190; Forel, 1917: 241; Emery, 1922c: 110; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.
- Elasmpheidole* as junior synonym of *Pheidole*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395.
- Cardiopheidole* Wheeler, W.M. 1914a: 48 [as subgenus of *Pheidole*]. Type-species: *Pheidole vaslitii*, by original designation.
- Taxonomic history**
- Cardiopheidole* as subgenus of *Pheidole*: Wheeler, W.M. 1914a: 48; Forel, 1917: 241.
- Cardiopheidole* as junior synonym of *Pheidole*: Emery, 1915f: 190; Emery, 1921b: 84; Smith, D.R. 1979: 1366.
- Anergatides* Wasmann, 1915: 281. Type-species: *Anergatides kohli* (junior secondary homonym in *Pheidole*, replaced by *Pheidole neokohli*), by monotypy.
- Taxonomic history**
- Anergatides* in Myrmicinae, Pheidolini: Forel, 1917: 243 [subtribe Anergatini]; Emery, 1922c: 116 [subtribe Anergatidini]; Donisthorpe, 1943c: 623.
- Anergatides* in Myrmicinae, Solenopsidini: Wheeler, W.M. 1922a: 663; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism).
- Anergatides* as junior synonym of *Pheidole*: Brown, 1973b: 178 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 1984: 328; Bolton, 1994: 106.
- Parapheidole* Emery, 1915d: 68. Type-species: *Aphaenogaster oculata*, by monotypy.
- Taxonomic history**
- Parapheidole* in Myrmicinae, Pheidolini: Forel, 1917: 241; Emery, 1922c: 115; Wheeler, W.M. 1922a: 661; all subsequent authors.
- Parapheidole* as junior synonym of *Pheidole*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395.
- Macropheidole* Emery, 1915f: 190 [as subgenus of *Pheidole*]. Type-species: *Pheidole fimbriata*, by monotypy.
- Taxonomic history**
- Macropheidole* as subgenus of *Pheidole*: Emery, 1915f: 190; Forel, 1917: 241; Emery, 1921b: 81; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.
- Macropheidole* as junior synonym of *Pheidole*: Smith, M.R. 1951: 800; Brown, 1973b: 181 [provisional]; Smith, D.R. 1979: 1366.
- Scrobopheidole* Emery, 1915f: 190 [as subgenus of *Pheidole*]. Type-species: *Pheidole scrobifera*, by monotypy.
- Taxonomic history**
- Scrobopheidole* as subgenus of *Pheidole*: Forel, 1917: 241; Emery, 1922c: 112; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.
- Scrobopheidole* as junior synonym of *Pheidole*: Brown, 1973b: 184 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 2003: 6.

- Stegopheidole* Emery, 1915f: 190 [as subgenus of *Pheidole*]. Type-species: *Pheidole* (*Elasmopheidole*) *upeneci*, by monotypy.
- Taxonomic history**
Stegopheidole as subgenus of *Pheidole*: Emery, 1921b: 83; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.
Stegopheidole as junior synonym of *Pheidole*: Brown, 1973b: 185 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395.
- Trachypheidole* Emery, 1915f: 190 [as subgenus of *Pheidole*]. Type-species: *Pheidole bicornis*, by original designation.
- Taxonomic history**
Trachypheidole as subgenus of *Pheidole*: Forel, 1917: 241; Emery, 1922c: 111; Wheeler, W.M. 1922a: 673; all subsequent authors to the following.
Trachypheidole as junior synonym of *Pheidole*: Brown, 1973b: 185 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 2003: 6.
- Electropheidole* Mann, 1921: 438 [as subgenus of *Pheidole*]. Type-species: *Pheidole* (*Electropheidole*) *roosevelti*, by subsequent designation of Donisthorpe, 1943c: 642.
- Taxonomic history**
Electropheidole as subgenus of *Pheidole*: Mann, 1921: 438; Wheeler, W.M. 1922a: 672; all subsequent authors to the following.
Electropheidole as junior synonym of *Pheidole*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395.
- Bruchomyrma* Santschi, 1922b: 248. Type-species: *Bruchomyrma acutidens*, by monotypy.
- Taxonomic history**
Bruchomyrma in Myrmicinae, Pheidolini: Donisthorpe, 1943c: 629.
Bruchomyrma in Myrmicinae, Myrmicini: Kempf, 1972a: 42.
Bruchomyrma as junior synonym of *Pheidole*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 1984: 327; Bolton, 1994: 106; Wilson, 2003: 6.
- Bruchomyrma* as genus: Dlussky & Fedoseeva, 1988: 80 (anachronism).
- Cephalomorium* Forel, 1922: 91 [as subgenus of *Tetramorium*]. Type-species: *Tetramorium* (*Cephalomorium*) *bahai*, by monotypy.
- Taxonomic history**
Cephalomorium as junior synonym of *Hendecapheidole*: Santschi, 1925d: 228.
- Hendecapheidole* Wheeler, W.M. 1922d: 3 [as subgenus of *Pheidole*]. Type-species: *Pheidole tachigaliae*, by original designation.
- Taxonomic history**
Hendecapheidole as junior synonym of *Pheidole*: Brown, 1973b: 181 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 2003: 6.
- Gallardomyrma* Bruch, 1932: 271. Type-species: *Gallardomyrma argentina*, by original designation.
- Taxonomic history**
Gallardomyrma in Myrmicinae, Pheidolini: Donisthorpe, 1943c: 646.
Gallardomyrma in Myrmicinae, Myrmicini: Kempf, 1972a: 110.
Gallardomyrma as junior synonym of *Pheidole*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Wilson, 1984: 327; Wilson, 2003: 6.
- Gallardomyrma* as genus: Kempf, 1972a: 110; Dlussky & Fedoseeva, 1988: 80 (anachronism).
- Conothoracoides* Strand, 1935: 176.
- Taxonomic history**
[Replacement name for *Conothorax* Karavaiev; junior homonym of *Conothorax* Jekel, 1854: 9 bis (foldout pages) (Coleoptera).]
Conothoracoides as junior synonym of *Pheidole*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395.
- Homonym replaced by *Conothoracoides*
- Conothorax* Karavaiev, 1935: 75. Type-species: *Conothorax bilobum*, by monotypy.
- Taxonomic history**
[*Conothorax* Karavaiev junior homonym of *Conothorax* Jekel, 1854: 9 bis (foldout pages) (Coleoptera).]
Conothorax in Myrmicinae, Pheidolini: Karavaiev, 1935: 75.
- Eriopheidole* Kusnezov, 1952a: 10. Type-species: *Eriopheidole symbiotica* (unresolved junior secondary homonym in *Pheidole*), by monotypy.
- Taxonomic history**
Eriopheidole in Myrmicinae, Pheidolini: Kusnezov, 1952a: 10.
Eriopheidole in Myrmicinae, Myrmicini: Kempf, 1972a: 107.
Eriopheidole junior synonym of *Pheidole*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1366; Snelling, 1981: 395; Bolton, 1994: 106.
- Eriopheidole* as genus: Kempf, 1972a: 107; Dlussky & Fedoseeva, 1988: 80 (anachronism).
- Xenoaphaenogaster* Baroni Urbani, 1964: 50. Type-species: *Xenoaphaenogaster inquilina* (junior synonym of *Pheidole pallidula*), by original designation.
- Taxonomic history**
Xenoaphaenogaster as junior synonym of *Monomorium*: Brown, 1973b: 185 [provisional].
Xenoaphaenogaster as junior synonym of *Pheidole*: Bolton, 1987: 291.

Genus references

Smith, F. 1858b: 172 (diagnosis); Mayr, 1861: 70 (Europe species key); Roger, 1863b: 27, 30 (catalogue); Mayr, 1863: 424, 440 (*Ischnomyrmex*, *Pheidole* catalogues); Mayr, 1865: 18, 22 (*Ischnomyrmex*, *Pheidole* diagnoses); Mayr, 1867a: 92, 96 (*Ischnomyrmex*, *Pheidole* diagnoses); Mayr, 1870b: 977, 979 (Australia & New World species keys); Mayr, 1876: 102 (Australia species key); André, 1883b: 382 (Europe & Algeria species key); Mayr, 1879: 674 (Asia species key); Mayr, 1887: 582 (New World species key); Cresson, 1887: 262 (U.S.A., catalogue); Nasonov, 1889: 75 (Russia species key); Dalla Torre, 1893: 88, 98 (*Pheidole*, *Pheidolacanthinus* catalogues); Emery, 1895b: 288 (North America species key); Mayr, 1896: 241 (Africa species, partial key); Emery, 1896c: 80 (*P. flavens* group, key); Forel, 1902a: 165 (India species key); Forel, 1902b: 523 (India & Sri Lanka species key); Bingham, 1903: 223 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1908a: 133 (Puerto Rico species key); Arnold, 1920: 414 (diagnosis, South Africa species key); Emery, 1921b: 78 (diagnosis, subgenera key, catalogue); Emery, 1921b: 81 (*P. (Macropheidole)* & *P. (Pheidolacanthinus)* diagnoses, catalogues); Emery, 1921b: 83 (*P. (Stegopheidole)* diagnosis, catalogue); Mann, 1921: 442 (Fiji Is species key); Emery, 1922c: 110 (*P. (Elasmopheidole)* diagnosis, catalogue); Emery, 1922c: 111 (*P. (Trachypheidole)* diagnosis, catalogue); Emery, 1922c: 112 (*P. (Scrobopheidole)*), *P. (Decapheidole)* & *P. (Ceratopheidole)* diagnoses, catalogues); Emery, 1922c: 113 (*Ischnomyrmex* diagnosis, catalogue); Emery, 1922c: 114 (*Epipheidole* diagnosis, catalogue); Emery, 1922c: 115 (*Sympheidole*, *Parapheidole* diagnoses, catalogues); Emery, 1922c: 116 (*Anergatides* diagnosis, catalogue); Wheeler, W.M. 1922a: 126, 672 (diagnosis, subgenera key); Wheeler, W.M. 1922a: 806, 879 (Afrotropical *Pheidole*, *Anergatides* catalogues); Wheeler, W.M. 1922a: 1017, 1021 (Malagasy *Pheidole*, *Parapheidole* catalogues); Gallardo, 1932c: 179 (Argentina *Elasmopheidole* species key); Finzi, 1936: 165 (Egypt species key); Menozzi, 1939: 298 (Himalaya species key); Cole, 1942: 362 (U.S.A., Utah species key); Buren, 1944: 285 (U.S.A., Iowa species key); Creighton, 1950a: 163 (North America species key); Creighton, 1950a: 192, 194 (North America *Epipheidole*, *Sympheidole* species); Chapman & Capco, 1951: 135, 137 (Asia *Ceratopheidole*, *Conothorax*, *Ischnomyrmex*, *Pheidole* checklists); Kusnezov, 1952b: 61 (Argentina species key); Smith, M.R. 1955: 302 (*P. (Hendecapheidole)* species key); Gregg, 1959: 9 (U.S.A. species key); Gregg, 1963: 407 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 126 (U.S.A., North Dakota species key); Bernard, 1967: 149 (diagnosis, Western Europe species key); Gregg, 1969: 95 (addition to Gregg, 1959 U.S.A. key); Kempf, 1972a: 183 (Neotropical catalogue); Alayo, 1974: 11 (Cuba species key); Smith, D.R. 1979: 1365 (North America catalogue); Allred, 1982: 441 (U.S.A., Utah species key); Ogata, 1982: 191 (Japan species key); Collingwood, 1985: 253 (Saudi Arabia species key); Naves, 1985: 54 (U.S.A., Florida species key); Taylor & Brown, D.R. 1985: 74 (Australia catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 41 (U.S.A., Nevada species key); Taylor, 1987a: 53 (Australia, New Caledonia & New Zealand checklists); Agosti & Collingwood, 1987: 271 (Balkans species key); Hölldobler & Wilson, 1990: 15 (synoptic classification); Kupyanskaya, 1990: 123 (Far Eastern Russia species key); Brandão, 1991: 368 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1992: 22 (Japan species key); Bolton, 1994: 106 (synoptic classification); Kupyanskaya, 1995: 345 (Far Eastern Russia species key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 316 (catalogue); Wu, J. & Wang, 1995: 99 (China species key); Collingwood & Agosti, 1996: 322 (Saudi Arabia species key); Park & Kim, 2000: 109 (Korea species key); Shattuck, 1999: 152 (Australia synopsis); Eguchi, 1999: 103 (Borneo *P. longipes* group, key); Ward, 2000: 96 (U.S.A. *P. hyatti* complex, key); Zhou, 2001: 121 (China, Guangxi species key); Eguchi, 2001: 10 (Borneo species key); Wilson, 2003: 27 (New World, all species revision, keys).

Genera incertae sedis in Pheidolini

Genus **LONCHOMYRMEX*

**Lonchomyrmex* Mayr, 1867b: 61. Type-species: **Formica freyeri*, by monotypy.

Taxonomic history

**Lonchomyrmex* in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

**Lonchomyrmex* in Myrmicinae: Dalla Torre, 1893: 156.

**Lonchomyrmex* in Formicinae?, Formicini?: Donisthorpe, 1943c: 658.

**Lonchomyrmex* in Myrmicinae, Pheidolini?: Bolton, 1994: 106; Bolton, 1995b: 248.

Genus **PARAPHAENOGASTER*

**Paraphaenogaster* Dlussky, 1981: 68. Type-species: **Paraphaenogaster microphthalmus*, by original designation.

Taxonomic history

**Paraphaenogaster* in Myrmicinae, Pheidolini: Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995b: 312.

[**Paraphaenogaster* Hong, 1984: 8, incorrect subsequent spelling.]

Tribe LENOMYRMECINI trib. n.

Genus: *Lenomyrmex* [type-genus]. [*Taxonomy*, p. 64.]

Genus of Lenomyrmecini

Genus *LENOMYRMEX*

Lenomyrmex Fernández & Palacio, 1999: 8. Type-species: *Lenomyrmex mandibularis*, by original

designation.

Taxonomic history

Lenomyrmex in Myrmicinae, Pheidolini: Fernández & Palacio, 1999: 8.

Genus references

Fernández & Palacio, 1999: 14 (all species key); Fernández, 2001: 203 (all species key).

Tribe PARATOPULINI trib. n.

Genus: *Paratopula* [type-genus]. [*Taxonomy*, p. 65.]

Genus of Paratopulini

Genus PARATOPULA

Paratopula Wheeler, W.M. 1919a: 144. Type-species: *Atopomyrmex ceylonicus*, by original designation.

Taxonomic history

Paratopula in Myrmicinae, Myrmecini: Wheeler, W.M. 1922a: 663.

Paratopula in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Paratopula as junior synonym of *Atopula*: Brown, 1973b: 183 [provisional].

Paratopula as genus: Bolton, 1988b: 125.

Genus references

Chapman & Capco, 1951: 115, 118 (Asia checklist); Bolton, 1988b: 125 (diagnosis, review of genus, all species revision, key); Bolton, 1995a: 1051 (census); Bolton, 1995b: 312 (catalogue).

Tribe CREMATOGASTRINI

Crematogastrii Forel, 1893a: 164. Type-genus: *Crematogaster*.

Taxonomic history

Crematogastrii tribe of Myrmicinae: Forel, 1893a: 164 [*Crematogastrii*]; Emery, 1895e: 769 [*Crematogastrii*]; Forel, 1899: 81 [*Crematogastrii*]; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140 [*Crematogastrii*]; Emery, 1914a: 37; Forel, 1917: 242; Arnold, 1920: 482; Emery, 1922c: 127; Wheeler, W.M. 1922a: 656; all subsequent authors. [*Taxonomy*, p. 66.]

Genera: *Crematogaster*, *Recurvidris*.

Tribe and genus *Crematogaster* references

Mayr, 1855: 468 (diagnosis); Smith, F. 1858b: 135 (diagnosis); Roger, 1863b: 36 (catalogue); Mayr, 1863: 403 (catalogue); Mayr, 1865: 22 (diagnosis); Mayr, 1867a: 103 (diagnosis); Mayr, 1870b: 989 (New World species key); Mayr, 1876: 107 (Australia species key); Mayr, 1879: 680 (Asia species key); André, 1883b: 391 (Europe & Algeria species key); Cresson, 1887: 262 (U.S.A. catalogue); Nasonov, 1889: 76 (Russia species key); Forel, 1892h: 528 (Madagascar species key); Dalla Torre, 1893: 79 (catalogue); Mayr, 1895: 135 (Africa species key); Forel, 1903: 679 (India & Sri Lanka species key); Bingham, 1903: 124 (diagnosis, India, Sri Lanka & Burma species key); Ruzsky, 1905: 486 (Russian Empire species key); Wheeler, W.M. 1910d: 140 (diagnosis); Emery, 1912d: 651 (Palearctic species key); Santschi, 1913a: 411 (*C. tricolor* group, key); Emery, 1914a: 37 (tribe diagnosis (in key)); Emery, 1916b: 156 (Italy species key); Bondroit, 1918: 112 (France & Belgium species key); Santschi, 1918: 183 (subgenera key); Mann, 1919: 323 (Solomon Is species key); Arnold, 1920: 482, 486 (diagnosis, South Africa species key); Emery, 1922c: 127 (diagnosis, subgenera key, catalogue); Emery, 1922c: 130 (*C. (Orthocrema)* diagnosis, catalogue); Emery, 1922c: 137 (*C. (Eucrema)* & *C. (Decacrema)* diagnoses, catalogues); Emery, 1922c: 138 (*C. (Xiphocrema)* diagnosis, catalogue); Emery, 1922c: 139 (*C. (Physocrema)* diagnosis, catalogue); Emery, 1922c: 140 (*C. (Crematogaster)* diagnosis, catalogue); Emery, 1922c: 152 (*C. (Sphaerocrema)* diagnosis, catalogue); Emery, 1922c: 153 (*C. (Atopogyne)* diagnosis, catalogue); Emery, 1922c: 135 (*C. (Paracrema)* diagnosis, catalogue); Emery, 1922c: 156 (*C. (Oxygyne)* diagnosis, catalogue); Emery, 1922c: 157 (*C. (Nematocrema)* diagnosis, catalogue); Wheeler, W.M. 1922a: 150, 661, 828, 1022 (diagnosis, subgenera key, Afrotropical, Malagasy catalogues); Menozzi, 1930: 106 (Somalia species key); Santschi, 1930c: 263 (Japan species key); Menozzi, 1933a: 61 (Israel species key); Gallardo, 1934: 4, 54 (Argentina *C. (Orthocrema)*, *C. (Neocrema)* species keys); Menozzi, 1935a: 112 (Malayo-Papuan *C. (Orthocrema)* species key); Finzi, 1936: 175 (Egypt species key); Santschi, 1937a: 311 (Palearctic species key); Menozzi, 1939: 300 (Himalaya & Tibet species key); Donisthorpe, 1941f: 226 (*C. (Physocrema)* species key); Cole, 1942: 363 (U.S.A., Utah species key); Buren, 1944: 288 (U.S.A., Iowa species key); Creighton, 1945: 114 (*C. (Rhachiocrema)* species key); Creighton, 1950a: 203 (North America species key); Chapman & Capco, 1951: 86 (Asia checklist); Fromantin & Soulié, 1961: 92 (subgenera key); Gregg, 1963: 356 (U.S.A., Colorado species key); Soulié, 1965: 77 (genera key); Bernard, 1967: 159 (diagnosis, Western Europe species key); Buren, 1968b: 91 (U.S.A. species key); Kempf, 1972a: 81 (Neotropical catalogue); Delage-Darchen, 1973: 221 (venation); Alayo, 1974: 13 (Cuba species key); Tarbinsky, 1976: 75 (Kirgizstan species key); Wheeler, G.C. & Wheeler, J. 1976: 54 (larvae, review & synthesis); Smith, D.R. 1979: 1376 (North America catalogue); Wheeler, G.C. & Wheeler, J. 1986b: 47 (U.S.A., Nevada species key); Agosti & Collingwood, 1987: 272 (Balkans species key); Arnol'di & Dlussky, 1978: 538 (former European U.S.S.R. species key); Collingwood, 1978: 81 (Iberian Peninsula species key); Allred, 1982: 439 (U.S.A., Utah species key); Collingwood, 1985: 259 (Saudi Arabia species key); Taylor & Brown, D.R. 1985: 60 (Australia catalogue); Taylor, 1987a: 22 (Australia checklist); Johnson, 1988: 330 (Eastern U.S.A. species key); Dlussky, Soyunov & Zabelin, 1990: 242 (Turkmenistan species key); Kupyanskaya, 1990: 128 (Far Eastern Russia species key); Brandão, 1991: 338 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1992: 59 (Japan species

key); Atanasov & Dlussky, 1992: 181 (Bulgaria species key); Arakelian, 1994: 43 (Armenia species key); Bolton, 1994: 105 (synoptic classification); Kupyanskaya, 1995: 346 (Far Eastern Russia species key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 146 (catalogue); Wu, J. & Wang, 1995: 62 (China species key); Collingwood & Agosti, 1996: 328 (Saudi Arabia species key); Seifert, 1996: 115 (Central Europe species key); Onoyama, 1998: 228 (Japan species key); Collingwood & Prince, 1998: 15 (Portugal species key); Shattuck, 1999: 132 (Australia synopsis); Zhou, 2001: 73 (China, Guangxi species key); Longino, 2003: 25 (Costa Rica species key).

Genera of Crematogastrini

Genus *CREMATOGASTER*

Crematogaster Lund, 1831a: 132. Type-species: *Formica scutellaris*, by subsequent designation of Bingham, 1903: 124.

Taxonomic history

[Type-species not *Formica acuta*, unjustified subsequent designation by Emery, 1912c: 272; this error repeated in, for example, Emery, 1914b: 39, Arnold, 1920: 482, Emery, 1922c: 128, Gallardo, 1934: 4, Soulié, 1965: 78.]

[*Crematogaster* Mayr, 1861: 74 (and many later authors), incorrect subsequent spelling. Discussion of spelling: Emery, 1912c: 272 (footnote); Wheeler, W.M. 1913a: 78; Donisthorpe, 1941c: 36; Buren, 1959: 125.]

Crematogaster in Poneridae, Myrmicidae: Smith, F. 1858b: 134.

Crematogaster in Myrmicidae: Smith, F. 1971a: 329; Cresson, 1887: 262.

Crematogaster in Myrmicinae: Mayr, 1855: 468 [Myrmicidae]; Smith, F. 1857: 75 [Myrmicidae]; Mayr, 1861: 74 [Myrmicidae]; Mayr, 1865: 22 [Myrmicidae]; Emery & Forel, 1879: 464 [Myrmicidae]; Dalla Torre, 1893: 79.

Crematogaster in Myrmicinae, Pheidolini: Emery, 1877a: 81 [Myrmicidae, Pheidolidae].

Crematogaster in Myrmicinae, Crematogastrini: Forel, 1893a: 164; Forel, 1895a: 130; Emery, 1895e: 769; Forel, 1899: 81; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 140; Emery, 1914a: 41; Forel, 1917: 242; Arnold, 1920: 482; Emery, 1922c: 127; Wheeler, W.M. 1922a: 661; all subsequent authors.

Junior synonym of *CREMATOGASTER*

Acrocoelia Mayr, 1853a: 147. Type-species: *Acrocoelia ruficeps* (junior synonym of *Crematogaster scutellaris*), by subsequent designation of Wheeler, W.M. 1911b: 158.

Taxonomic history

Acrocoelia as genus: Mayr, 1853a: 147; Soulié, 1964: 398.

Acrocoelia as subgenus of *Crematogaster*: Emery, 1922c: 140; Donisthorpe, 1943c: 619; Creighton, 1950a: 206; Chapman & Capco, 1951: 86.

Acrocoelia as junior synonym of *Crematogaster*: Roger, 1863b: 36; Mayr, 1863: 404; Emery & Forel, 1879: 464; Dalla Torre, 1893: 79; Wheeler, W.M. 1911b: 158; Wheeler, W.M. 1922a: 828; Buren, 1959: 126; Kempf, 1972a: 81; Brown, 1973b: 178. [The type-species of *Acrocoelia* and *Crematogaster* are synonymous, the generic synonymy is therefore absolute.]

Subgenera of *CREMATOGASTER* include the nominal plus the following.

Subgenus *CREMATOGASTER* (*OXYGYNE*)

Oxygyne Forel, 1901c: 375 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster (Oxygyne) daisyi*, by subsequent designation of Wheeler, W.M. 1911b: 169.

Taxonomic history

Oxygyne as genus: Soulié, 1964: 398.

Oxygyne as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Oxygyne as subgenus of *Crematogaster*: Forel, 1900c: 375; Forel, 1917: 242; Arnold, 1920: 542; Emery, 1922c: 156; Wheeler, W.M. 1922a: 662; subsequent authors except those above; Bolton, 1995b: 40.

Subgenus *CREMATOGASTER* (*DECACREMA*)

Decacrema Forel, 1910a: 18 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster schencki*, by subsequent designation of Wheeler, W.M. 1911b: 161.

Taxonomic history

[*Decacrema* also described as new by Forel, 1910c: 9. Type-species not *Crematogaster decamera*, unjustified subsequent designation by Wheeler, W.M. 1922a: 860.]

Decacrema as genus: Soulié, 1964: 398.

Decacrema as junior synonym of *Crematogaster*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Decacrema as subgenus of *Crematogaster*: Forel, 1910a: 18; Forel, 1917: 242; Arnold, 1920: 547; Emery, 1922c: 137; Wheeler, W.M. 1922a: 661; subsequent authors except for those above; Bolton, 1995b: 26.

[*Decracrema* Arnold, 1920: 547; incorrect subsequent spelling.]

Subgenus *CREMATOGASTER* (*ATOPOGYNE*)

Atopogyne Forel, 1911b: 343 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster (Atopogyne) hellenica*, by subsequent designation of Wheeler, W.M. 1911b: 159.

Taxonomic history

[Type-species not *Crematogaster depressa*, unjustified subsequent designation by Emery, 1912c: 272; repeated in Emery, 1922c: 154, Wheeler, W.M. 1922a: 851 and Soulié, 1965: 78.]

Atopogyne as genus: Soulié, 1964: 398.

Atopogyne as junior synonym of *Crematogaster*: Brown, 1973b: 178 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Atopogyne as subgenus of *Crematogaster*: Forel, 1911b: 343; Forel, 1917: 242; Arnold, 1920: 545; Emery, 1922c: 153; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 21.

Subgenus *CREMATOGASTER* (*PHYSOCREMA*)

Physocrema Forel, 1912c: 220 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster inflata*, by subsequent designation of Wheeler, W.M. 1913a: 82.

Taxonomic history

Physocrema as genus: Soulié, 1964: 398.

Physocrema as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Physocrema as subgenus of *Crematogaster*: Forel, 1912c: 220; Forel, 1917: 242; Emery, 1922c: 139; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 42.

Subgenus *CREMATOGASTER* (*XIPHOCREMA*)

Xiphocrema Forel, 1913d: 80 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster tetracantha*, by subsequent designation of Emery, 1922c: 138.

Taxonomic history

Xiphocrema as genus: Soulié, 1964: 398.

Xiphocrema as junior synonym of *Crematogaster*: Brown, 1973b: 185 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Xiphocrema as subgenus of *Crematogaster*: Forel, 1913d: 80; Forel, 1917: 242; Emery, 1922c: 138; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 50.

Subgenus *CREMATOGASTER* (*NEMATOCREMA*)

Nematocrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster stadelmanni*, by original designation.

Taxonomic history

Nematocrema as genus: Soulié, 1964: 398.

Nematocrema as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Nematocrema as subgenus of *Crematogaster*: Santschi, 1918: 182; Emery, 1922c: 157; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 38.

Subgenus *CREMATOGASTER* (*ORTHOCREMA*)

Orthocrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Myrmica sordidula*, by original designation.

Taxonomic history

Orthocrema as genus: Soulié, 1964: 398.

Orthocrema as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Orthocrema as subgenus of *Crematogaster*: Santschi, 1918: 182; Emery, 1922c: 130; Wheeler, W.M. 1922a: 662; subsequent authors except those above; Bolton, 1995b: 40.

Junior synonym of *CREMATOGASTER* (*ORTHOCREMA*)

Tranopeltoides Wheeler, W.M. 1922e: 10. Type-species: *Tranopelta huberi*, by original designation.

Taxonomic history

Tranopeltoides in Myrmicinae, Solenopsidini: Donisthorpe, 1943d: 733; Kusnezov, 1957a: 270.

Tranopeltoides as junior synonym of *Crematogaster*: Kempf, 1960b: 173.

Subgenus *CREMATOGASTER* (*EUCREMA*)

Eucrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Formica acuta*, by original designation.

Taxonomic history

[Emery, 1919a: 62, Emery, 1922c: 137, Soulié, 1964: 389 and Soulié, 1965: 78 incorrectly treat *Eucrema* as a junior synonym of subgenus *Crematogaster sensu stricto*. This stems from Emery's 1912d: 272 unjustified subsequent designation of *Formica acuta* as type-species of *Crematogaster*; see above.]

Eucrema as junior synonym of *Crematogaster*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Eucrema as subgenus of *Crematogaster*: Kempf, 1972a: 82; Bolton, 1995b: 29.

Subgenus *CREMATOGASTER* (*NEOCREMA*)

Neocrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster distans*, by original designation.

Taxonomic history

Neocrema as junior synonym of *Orthocrema*: Emery, 1922c: 130.

Neocrema as genus: Soulié, 1964: 398.

Neocrema as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Neocrema as subgenus of *Crematogaster*: Santschi, 1918: 182; Wheeler, W.M. 1922a: 662; Kempf, 1972a: 82; Bolton, 1995b: 39.

Subgenus *CREMATOGASTER* (*SPHAEROCREMA*)

Sphaerocrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster kneri*, by original designation.

Taxonomic history

Sphaerocrema as genus: Soulié, 1964: 398.

Sphaerocrema as junior synonym of *Crematogaster*: Brown, 1973b: 185 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Sphaerocrema as subgenus of *Crematogaster*: Santschi, 1918: 182; Emery, 1922c: 152; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 46.

Subgenus *CREMATOGASTER* (*PARACREMA*)

Paracrema Santschi, 1918: 182 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster spengeli*, by original designation.

Taxonomic history

Paracrema as genus: Soulié, 1964: 398.

Paracrema as junior synonym of *Crematogaster*: Brown, 1973b: 183 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Paracrema as subgenus of *Crematogaster*: Santschi, 1918: 182; Emery, 1922c: 155; Wheeler, W.M. 1922a: 662; subsequent authors except those above; Bolton, 1995b: 41.

Subgenus *CREMATOGASTER* (*RHACHIOCREMA*)

Rhachiocrema Mann, 1919: 318 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster (Rhachiocrema) wheeleri*, by original designation.

Taxonomic history

Rhachiocrema as genus: Soulié, 1964: 398.

Rhachiocrema as junior synonym of *Crematogaster*: Brown, 1973b: 184 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Rhachiocrema as subgenus of *Crematogaster*: Mann, 1919: 318; Wheeler, W.M. 1922a: 662; subsequent authors except for those above; Bolton, 1995b: 45.

Subgenus *CREMATOGASTER* (*COLOBOCREMA*)

Colobocrema Wheeler, W.M. 1927b: 31 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster (Colobocrema) cylindriceps*, by monotypy.

Taxonomic history

Colobocrema as junior synonym of *Crematogaster*: Brown, 1973b: 179 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Colobocrema as subgenus of *Crematogaster*: Wheeler, W.M. 1927b: 31; Bolton, 1995b: 24.

Subgenus *CREMATOGASTER* (*MESOCREMA*)

Mesocrema Santschi, 1928b: 33 [as subgenus of *Crematogaster*]. Type-species: *Crematogaster rasoherinae*, by subsequent designation of Donisthorpe, 1943c: 661.

Taxonomic history

Mesocrema as junior synonym of *Crematogaster*: Brown, 1973b: 182 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Mesocrema as subgenus of *Crematogaster*: Santschi, 1928b: 33; Bolton, 1995b: 35.

Subgenus *CREMATOGASTER* (*APTEROCREMA*)

Apteroocrema Wheeler, W.M. 1936c: 45 (in text) [as subgenus of *Crematogaster*]. Type-species: *Crematogaster (Apteroocrema) atilana*, by monotypy.

Taxonomic history

Apteroocrema as junior synonym of *Crematogaster*: Brown, 1973b: 178 [provisional]; Smith, D.R. 1979: 1376; Hölldobler & Wilson, 1990: 13.

Apteroocrema as subgenus of *Crematogaster*: Wheeler, W.M. 1936c: 45; Kempf, 1972a: 81; Bolton, 1995b: 21.

Genus references: see above.

Genus *RECURVIDRIS* tribal transfer

Recurvidris Bolton, 1992: 36.

Taxonomic history

[Replacement name for *Trigonogaster* Forel, 1890b: cix; junior homonym of *Trigonogaster* Guérin-Méneville, 1844b: 1149 (Hymenoptera, Pteromalidae).]

Recurvidris in Myrmicinae, Pheidologetonini: Bolton, 1994: 106.

Homonym replaced by *RECURVIDRIS*

Trigonogaster Forel, 1890b: cviii. Type-species: *Trigonogaster recurvispinosa*, by monotypy.

Taxonomic history

[Junior homonym of *Trigonogaster* Guérin-Méneville, 1844b: 1149 (Hymenoptera, Pteromalidae).]

Trigonogaster in Myrmicinae: Dalla Torre, 1893: 72.

Trigonogaster in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 139.

Trigonogaster in Myrmicinae, Leptothoracini: Emery, 1914a: 42.

Trigonogaster in Myrmicinae, Solenopsidini: Wheeler, W.M. 1922a: 663.

Trigonogaster in Myrmicinae, Pheidologetini: Emery, 1915f: 192 [subtribe Lophomyrmicini]; Forel, 1917: 243; Emery, 1924: 210; all subsequent authors except the following.

Trigonogaster incertae sedis in Myrmicinae: Ettershank, 1966: 81; Dlussky & Fedoseeva, 1988: 81.

Genus references

Dalla Torre, 1893: 72 (catalogue); Emery, 1924: 210 (diagnosis, catalogue); Chapman & Capco, 1951: 161 (Asia checklist); Ettershank, 1966: 158 (diagnosis, review of genus, checklist); Bolton, 1992: 35 (diagnosis, review of genus, all species revision, key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 377 (catalogue); Zhou, 2000: 301 (China species key); Zhou, 2001: 110 (China, Guangxi species key).

Tribe ANKYLOMYRMINI trib. n.

Genus: *Ankylomyrma* [type-genus]. [*Taxonomy*, p. 66.]

Genus of Ankylomyrmini**Genus *ANKYLOMYRMA***

Ankylomyrma Bolton, 1973c: 235. Type-species: *Ankylomyrma coronacantha*, by original designation.

Taxonomic history

Ankylomyrma in Myrmicinae, Meranoplini: Bolton, 1973c: 236; Wheeler, G.C. & Wheeler, J. 1985: 257.

Ankylomyrma incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 80.

Ankylomyrma in Myrmicinae, Formicoxenini: Bolton, 1994: 105; Bolton, 1995a: 1048; Bolton, 1995b: 63.

Genus references

Bolton, 1981b: 247 (diagnosis, review of genus).

Tribe LIOMYRMECINI trib. n.

Genus: *Liomyrmex* [type-genus]. [*Taxonomy*, p. 67.]

Genus of Liomyrmecini**Genus *LIOMYRMEX***

Liomyrmex Mayr, 1865: 23. Type-species: *Myrmica caeca* (junior primary homonym; *L. gestroi* is first available replacement name: Bolton, 1995b: 248).

Taxonomic history

Liomyrmex in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Liomyrmex in Myrmicinae: Mayr, 1865: 23 [Myrmicidae]; Dalla Torre, 1893: 63.

Liomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Liomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Liomyrmex in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243;

Emery, 1922c: 191; Wheeler, W.M. 1922a: 663; all subsequent authors to the following.

Liomyrmex incertae sedis in Myrmicinae: Ettershank, 1966: 81; Dlussky & Fedoseeva, 1988: 81.

Liomyrmex in Myrmicinae, Metaponini: Hölldobler & Wilson, 1990: 16; Bolton, 1994: 105.

Junior synonyms of *LIOMYRMEX*

Laparomyrmex Emery, 1887b: 461. Type-species: *Laparomyrmex gestroi*, by monotypy.

Taxonomic history

Laparomyrmex as junior synonym of *Liomyrmex*: Dalla Torre, 1893: 63.

Promyrma Forel, 1912g: 764. Type-species: *Promyrma butteli*, by monotypy.

Taxonomic history

Promyrma as junior synonym of *Liomyrmex*: Forel, 1913d: 26; Emery, 1921b: 191; Wheeler, W.M. 1922a: 683 (in key).

Genus references

Dalla Torre, 1893: 63 (catalogue); Bingham, 1903: 198 (diagnosis); Emery, 1922c: 191 (diagnosis, catalogue); Donisthorpe, 1948a: 293 (checklist); Chapman & Capco, 1951: 162 (Asia checklist); Ettershank, 1966: 152 (diagnosis, review of genus, checklist); Bolton, 1995a: 1050 (census); Bolton, 1995b: 248 (catalogue); Rigato & Bolton, 2001: 247 (review of genus).

Tribe MERANOPLINI

Meranoplini Emery, 1914a: 37 (diagnosis in key). Type-genus: *Meranoplus*.

Taxonomic history

Meranoplini as tribe of Myrmicinae: Emery, 1914a: 37; Arnold, 1917: 360; Forel, 1917: 244; Wheeler, W.M. 1922a: 658; Emery, 1924: 222; all subsequent authors. [*Taxonomy*, p. 67.]

Genus (extant): *Meranoplus*.

Genus (extinct): **Parameranoplus*.

Tribe and genus *Meranoplus* references

Roger, 1863b: 39 (catalogue); Mayr, 1863: 428 (catalogue); Mayr, 1865: 26 (diagnosis); Dalla Torre, 1893: 136 (catalogue); Forel, 1903: 705 (India & Sri Lanka species key); Bingham, 1903: 167 (India, Sri Lanka & Burma species key); Emery, 1914a: 41 (synoptic classification); Arnold, 1917: 363 (diagnosis, South Africa species key); Forel, 1917: 244 (synoptic classification); Wheeler, W.M. 1922a: 183, 663, 887, 1029 (*Meranoplus* diagnosis, Meranoplini genera key, Afrotropical, Malagasy catalogues); Emery, 1924: 222 (diagnosis, genera key, catalogue); Wheeler, W.M. 1935a: 6 (genera key); Chapman & Capco, 1951: 112 (Asia checklist); Wheeler, G.C. & Wheeler, J. 1976: 55 (larvae, review & synthesis); Bolton, 1981a: 44, 46 (review of tribe, diagnosis, Afrotropical species revision, key); Taylor & Brown, D.R. 1985: 66 (Australia catalogue); Taylor, 1987a: 37 (Australia, New Caledonia checklist); Dlussky & Fedoseeva, 1988: 80 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 250 (catalogue); Wu, J. & Wang, 1995: 78 (China species key); Schödl, 1998: 361 (Oriental species revision, key); Shattuck, 1999: 141 (Australia synopsis).

Genera of Meranoplini

Genus *MERANOPLUS*

Meranoplus Smith, F. 1853: 224. Type-species: *Cryptocerus bicolor*, by subsequent designation of Bingham, 1903: 166.

Taxonomic history

Meranoplus in Myrmicidae, Cryptoceridae: Smith, F. 1853: 224; Emery, 1877a: 81.

Meranoplus in Poneridae, Cryptoceridae: Smith, F. 1858b: 193.

Meranoplus in Formicidae, Cryptoceridae: Smith, F. 1957a: 81; Smith, F. 1862c: 412.

Meranoplus in Cryptoceridae: Smith, F. 1871: 334; Smith, F. 1876: 611.

Meranoplus in Cryptoceridae, Cataulacinae: Ashmead, 1905b: 384.

Meranoplus in Myrmicinae: Mayr, 1865: 26 [Myrmicidae]; Dalla Torre, 1893: 136.

Meranoplus in Myrmicinae, Tetramoriini: Emery, 1895e: 770; Wheeler, W.M. 1910d: 141.

Meranoplus in Myrmicinae, Meranoplini: Emery, 1914a: 41; Forel, 1917: 244; Arnold, 1917: 363; Wheeler, W.M. 1922a: 664; Emery, 1924: 226; Wheeler, W.M. 1934a: 176; all subsequent authors.

Genus references: see above.

Genus **PARAMERANOPLUS*

**Parameranoplus* Wheeler, W.M. 1915e: 69. Type-species: **Parameranoplus primaevus*, by monotypy.

Taxonomic history

**Parameranoplus* in Myrmicinae, Tetramoriini: Wheeler, W.M. 1915e: 69; Donisthorpe, 1943c: 681.

**Parameranoplus incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.

**Parameranoplus* in Myrmicinae, Meranoplini: Bolton, 1994: 105; Bolton, 1995b: 311.

Tribe MYRMICARIINI

Myrmicarii Forel, 1893a: 165. Type-genus: *Myrmicaria*.

Taxonomic history

Myrmicariini as tribe of Myrmicinae: Forel, 1893a: 165 [Myrmicarii]; Emery, 1895e: 770 [Myrmicarii]; Wheeler, W.M. 1910d: 141 [Myrmicarii]; Ashmead, 1905b: 383; Emery, 1914a: 36; Arnold, 1916: 261; Forel, 1917: 242; Emery, 1922c: 120; Wheeler, W.M. 1922a: 656; all subsequent authors. [*Taxonomy*, p. 68.]

Genus: *Myrmicaria*.

Tribe and genus references

Smith, F. 1858b: 140, 141, 171 (*Myrmicaria*, *Heptacondylus*, *Physatta* diagnoses); Roger, 1863b: 27, 28 (catalogue); Mayr, 1863: 422, 436 (*Heptacondylus*, *Myrmicaria* catalogues); Mayr, 1865: 24 (*Heptacondylus* diagnosis); Mayr, 1867a: 111 (diagnosis); Dalla Torre, 1893: 155 (catalogue); Bingham, 1903: 118 (India, Sri Lanka & Burma species key); Emery, 1914a: 36 (diagnosis (in key)); Arnold, 1916: 261 (diagnosis, South Africa species key); Emery, 1922c: 121 (diagnosis, catalogue); Wheeler, W.M. 1922a: 141, 823 (diagnosis, Afrotropical catalogue); Santschi, 1925c: 171 (Afrotropical species, diagnosis, key); Karavaiev, 1935: 84 (Oriental & Malesian species key); Chapman & Capco, 1951: 123 (Asia checklist); Wheeler, G.C. & Wheeler, J. 1976: 53 (larvae, review & synthesis); Bolton, 1994: 106 (synoptic classification); Bolton, 1995a: 1051 (census); Bolton, 1995b: 285 (catalogue).

Genus of Myrmicariini

Genus *MYRMICARIA*

Myrmicaria Saunders, W.W. 1842: 57. Type-species: *Myrmicaria brunnea*, by monotypy.

Taxonomic history

Myrmicaria in Poneridae, Myrmicidae: Smith, F. 1858b: 140.

Myrmicaria in Myrmicidae: Smith, F. 1871: 330.

Myrmicaria in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

Myrmicaria in Myrmicinae: Dalla Torre, 1893: 155.

Myrmicaria in Myrmicinae, Myrmicariini: Forel, 1893a: 165; Emery, 1895e: 770; Ashmead, 1905b: 383; Emery, 1914a: 40; Arnold, 1916: 261; Forel, 1917: 242; Emery, 1922c: 120; Wheeler, W.M. 1922a: 661; all subsequent authors.

Junior synonyms of *MYRMICARIA*

Heptacondylus Smith, F. 1857: 71. Type-species: *Heptacondylus subcarinatus*, by subsequent designation of Wheeler, W.M. 1911b: 164.

Taxonomic history

Heptacondylus in Poneridae, Myrmicidae: Smith, F. 1858b: 141.

Heptacondylus in Myrmicinae: Smith, F. 1857: 71 [Myrmicidae]; Mayr, 1865: 24 [Myrmicidae].

Heptacondylus as junior synonym of *Myrmicaria*: Smith, F. 1865: 73; Mayr, 1866b: 905; Mayr, 1867a: 111; Smith, F. 1871: 330.

Physatta Smith, F. 1857: 77. Type-species: *Physatta dromedarius* (junior synonym of *Myrmicaria carinata*), by monotypy.

Taxonomic history

Physatta in Formicidae, Myrmicidae: Smith, F. 1857: 77.

Physatta in Poneridae, Attidae: Smith, F. 1858b: 171.

Physatta as junior synonym of *Heptacondylus*: Mayr, 1862: 755 (in text); Roger, 1863b: 27; Mayr, 1863: 442.

Physatta as junior synonym of *Myrmicaria*: Mayr, 1866b: 905; Mayr, 1867a: 111; Smith, F. 1871: 330; Bingham, 1903: 117.

Genus references: see above.

Tribe FORMICOXENINI

Formicoxenii Forel, 1893a: 164. Type-genus: *Formicoxenus*.

Taxonomic history

Formicoxenii as tribe of Myrmicinae: Forel, 1893a: 164 [Formicoxenii]; Bolton, 1994: 105. [*Taxonomy*, p. 68.]

Junior synonyms of FORMICOXENINI

Cardiocondyliini Emery, 1914a: 36 (diagnosis in key). Type-genus: *Cardiocondyla*.

Taxonomic history

Cardiocondyliini as tribe of Myrmicinae: Emery, 1914a: 36; Arnold, 1916: 200; Forel, 1917: 242; Emery, 1922c: 123; Wheeler, W.M. 1922a: 659; Wheeler, G.C. & Wheeler, J. 1985: 257; Dlussky & Fedoseeva, 1988: 80; Jaffe, 1993: 10.

Cardiocondyliini as junior synonym of Leptothoracini: Bolton, 1982: 311 (in text).

Stereomyrmicini Emery, 1914a: 36 (diagnosis in key). Type-genus: *Stereomyrmex*.

Taxonomic history

Stereomyrmicini as tribe of Myrmicinae: Emery, 1914a: 36; Forel, 1917: 242; Emery, 1922c: 119; Wheeler, W.M. 1922a: 656; Wheeler, G.C. & Wheeler, J. 1976: 53 [Stereomyrmecini]; Wheeler, G.C. & Wheeler, J. 1985: 257 [Stereomyrmecini]; Dlussky & Fedoseeva, 1988: 80 [Stereomyrmecini].

Stereomyrmicini as junior synonym of Formicoxenini: Bolton, 1994: 105.

Leptothoracini Emery, 1914a: 38 (diagnosis in key). Type-genus: *Leptothorax*.

Taxonomic history

Leptothoracini as tribe of Myrmicinae: Emery, 1914a: 38; Arnold, 1916: 257; Forel, 1917: 244; Wheeler, W.M. 1922a: 659; Emery, 1924: 244; all subsequent authors.

Leptothoracini as junior synonym of Formicoxenini: Bolton, 1994: 105.

Ochetomyrmicini Emery, 1914a: 38 (diagnosis in key). Type-genus: *Ochetomyrmex*. Syn. n.

Taxonomic history

Ochetomyrmicini as junior synonym of Solenopsidini: Kempf, 1975b: 358; Wheeler, G.C. & Wheeler, J. 1991: 133.

Ochetomyrmicini as tribe of Myrmicinae: Emery, 1914a: 38; Forel, 1917: 245; Wheeler, W.M. 1922a: 657; Emery, 1924: 292; Kusnezov, 1964: 59; Wheeler, G.C. & Wheeler, J. 1976: 59; Wheeler, G.C. & Wheeler, J. 1985: 257; Bolton, 1987: 266; Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995b: 14

Podomyrmini Emery, 1924: 236. Type-genus: *Podomyrma*.

Taxonomic history

Podomyrmini as subtribe of Myrmecini: Emery, 1924: 236.

Podomyrmini as tribe of Myrmicinae: Dlussky & Fedoseeva, 1988: 79.

Podomyrmini as junior synonym of Formicoxenini: Bolton, 1994: 105.

Solenomyrmini Donisthorpe, 1943d: 726. Type-genus: *Solenomyrma* (junior synonym of *Gauromyrmex*).

Syn. n.

Taxonomic history

Solenomyrmini as tribe of Myrmicinae: Donisthorpe, 1943d: 726.

Genera (extant): *Atopomyrmex*, *Cardiocondyla*, *Chalepoxenus*, *Dilobocondyla*, *Formicoxenus*, *Gauromyrmex*, *Harpagoxenus*, *Leptothorax*, *Myrmoxenus*, *Nesomyrmex*, *Ochetomyrmex*, *Peronomyrmex*, *Podomyrma*, *Poecilomyrma*, *Protomognathus*, *Romblonella*, *Rotastruma*, *Stereomyrmex*, *Temnothorax*, *Terataner*, *Vombisidris*, *Xenomyrmex*.

Genus (extant) *incertae sedis*: *Tricytarus*.

Genus (extinct) *incertae sedis*: **Stigmomyrmex*.

Tribe references

Emery, 1914a: 42 (Leptothoracini, synoptic classification); Forel, 1917: 244 (synoptic classification); Emery, 1922c: 119 (Stereomyrmecini diagnosis, catalogue); Emery, 1922c: 123 (Cardiocondyliini diagnosis, catalogue); Wheeler, W.M. 1922a: 664, 670 (Ochetomyrmecini, Leptothoracini genera keys); Wheeler, W.M. 1922a: 827, 885, 886, 889 (Afrotropical Cardiocondyliini, Leptothoracini catalogues); Wheeler, W.M. 1922a: 1021, 1029 (Malagasy Cardiocondyliini, Leptothoracini catalogues); Emery, 1924: 236 (Podomyrmini diagnosis, catalogue); Emery, 1924: 244 (Leptothoracini diagnosis, genera key, catalogue); Wheeler, G.C. & Wheeler, J. 1976: 54, 57 (Cardiocondyliini, Leptothoracini larvae, review & synthesis); Kugler, C. 1978a: 440 (sting structure); Buschinger, 1981: 211 (socially parasitic taxa, relationships); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Brandão, 1991: 391 (Neotropical fauna, synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 12 (catalogue); Buschinger, 1997: 1 (Western Europe, socially parasitic species, review).

Genera of Formicoxenini

Genus *ATOPOMYRMEX*

Atopomyrmex André, 1889: 226. Type-species: *Atopomyrmex mocquersyi*, by monotypy.

Taxonomic history

Atopomyrmex in Myrmicinae: Dalla Torre, 1893: 60.

Atopomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Atopomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Atopomyrmex in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Arnold, 1916: 190; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 239 [subtribe Podomyrmini]; all subsequent authors to the following.

Atopomyrmex in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Atopomyrmex in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Genus references

Dalla Torre, 1893: 60 (catalogue); Arnold, 1916: 190 (diagnosis); Wheeler, W.M. 1922a: 180, 885 (diagnosis, catalogue); Emery, 1924: 239 (diagnosis, catalogue); Santschi, 1925f: 163 (all species key); Bolton, 1981b: 249 (diagnosis, all species revision, key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 75 (catalogue).

Genus *CARDIOCONDYLA*

Cardiocondyla Emery, 1869b: 20. Type-species: *Cardiocondyla elegans*, by monotypy.

Taxonomic history

Cardiocondyla in Myrmicinae: Emery, 1877a: 81 [Myrmicidae]; Emery & Forel, 1879: 456 [Myrmicidae]; Dalla Torre, 1893: 70.

Cardiocondyla in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139; Kusnezov, 1964: 57 (anachronism).

Cardiocondyla in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Cardiocondyla in Myrmicinae, Cardiocondyliini: Emery, 1914a: 40; Arnold, 1916: 200; Forel, 1917: 242; Emery, 1922c: 124; Wheeler, W.M. 1922a: 661; all subsequent authors; Dlussky & Fedoseeva, 1988: 80 (anachronism); Jaffe, 1993: 10 (anachronism).

Cardiocondyla in Myrmicinae, Leptothoracini: Bolton, 1982: 311 (in text).

Cardiocondyla in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Junior synonyms of *CARDIOCONDYLA*

Emeryia Forel, 1890b: cx. Type-species: *Emeryia wroughtonii*, by monotypy.

Taxonomic history

Emeryia as junior synonym of *Cardiocondyla*: Forel, 1892e: 461; Forel, 1892f: 313; Dalla Torre, 1893: 70.

Xenometra Emery, 1917: 96. Type-species: *Xenometra monilicornis* (junior synonym of *Cardiocondyla emeryi*), by monotypy.

Taxonomic history

Xenometra in Myrmicinae, Cardiocondyliini: Emery, 1922c: 126; Wheeler, W.M. 1922a: 661; subsequent authors.

Xenometra as junior synonym of *Cardiocondyla*: Baroni Urbani, 1973: 199; Marikovskiy & Yakushin, 1974: 60.

Dyclona Santschi, 1930b: 70 (footnote) [as subgenus of *Cardiocondyla*]. Type-species: *Monomorium cristatum*, by original designation.

Taxonomic history

Dyclona as junior synonym of *Cardiocondyla*: Brown, 1973b: 180 [provisional]; Smith, D.R. 1979: 1375; Bolton, 1982: 309.

Loncyda Santschi, 1930b: 70 [as subgenus of *Cardiocondyla*]. Type-species: *Cardiocondyla (Loncyda) monardi*, by monotypy.

Taxonomic history

Loncyda as junior synonym of *Cardiocondyla*: Brown, 1973b: 181 [provisional]; Smith, D.R. 1979: 1375; Bolton, 1982: 309.

Prosopidris Wheeler, W.M. 1935b: 40 [as subgenus of *Cardiocondyla*]. Type-species: *Cardiocondyla (Prosopidris) sima*, by original designation.

Taxonomic history

Prosopidris in Myrmicinae, Cardiocondyliini: Donisthorpe, 1943c: 688.

Prosopidris as genus: Reiskind, 1965: 80.

Prosopidris as junior synonym of *Cardiocondyla*: Brown, 1973b: 184 [provisional]; Smith, D.R. 1979: 1375; Bolton, 1982: 309.

Genus references

André, 1883a: 327 (Europe & Algeria species key); Dalla Torre, 1893: 70 (catalogue); Forel, 1903: 688 (India & Sri Lanka species key); Bingham, 1903: 287 (India, Sri Lanka & Burma species key); Ruzsky, 1905: 623 (Russian Empire species key); Emery, 1909a: 20 (Palearctic species key); Arnold, 1916: 200 (diagnosis); Emery, 1922c: 124 (diagnosis, catalogue); Emery, 1922c: 126 (*Xenometa* diagnosis, catalogue); Wheeler, W.M. 1922a: 149, 827, 1021 (diagnosis, Afrotropical, Malagasy catalogues); Kuznetsov-Ugamsky, 1927c: 37 (Turkistan species key); Karavaiev, 1934: 114 (Ukraine species key); Finzi, 1936: 172 (Egypt species key); Smith, M.R. 1944a: 32 (U.S.A. species key); Creighton, 1950a: 197 (North America species key); Chapman & Capco, 1951: 83 (Asia checklist); Bernard, 1956b: 301 (Palearctic species key); Bernard, 1967: 156 (diagnosis, Western Europe species key); Bernard, 1967: 158 (*Xenometa* diagnosis); Kempf, 1972a: 73, 259 (Neotropical *Cardiocondyla*, *Xenometa* catalogues); Alayo, 1974: 12 (Cuba species key); Tarbinsky, 1976: 71 (Kirgizstan species key); Arnol'di & Dlussky, 1978: 538 (former European U.S.S.R. species key); Collingwood, 1978: 86 (Iberian Peninsula species key); Smith, D.R. 1979: 1375 (North America catalogue); Bolton, 1982: 309 (diagnosis, Afrotropical species key); Kugler, J. 1984: 17 (males, key); Collingwood, 1985: 256 (Saudi Arabia species key); Agosti & Collingwood, 1987: 276 (Balkans species key); Dlussky, Soyunov & Zabelin, 1990: 193 (Turkmenistan species key); Morisita, Kubota, Onoyama, *et al.*, 1992: 31 (Japan species key); Atanasov & Dlussky, 1992: 172 (Bulgaria species key); Arakelian, 1994: 42 (Armenia species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 132 (catalogue); Radchenko, 1995: 452 (Palearctic species key); MacKay, 1995: 170 (New World species key); Wu, J. & Wang, 1995: 68 (China species key); Collingwood & Agosti, 1996: 326 (Saudi Arabia species key); Collingwood & Prince, 1998: 16 (Portugal species key); Terayama, 1999c: 99 (Japan species, review); Shattuck, 1999: 129 (Australia synopsis); Zhou, 2001: 85 (China, Guangxi species key); Rigato, 2002: 172 (Afrotropical species key); Seifert, 2003: 292 (*C. elegans*, *bulgarica*, *batesii*, *nuda*, *shuckardi*, *stambuloffii*, *wroughtonii*, *emeryi*, & *minutior* groups revision, key).

Genus CHALEPOXENUS

Chalepoxenus Menozzi, 1923: 257. Type-species: *Chalepoxenus gribodoi* (junior synonym of *Chalepoxenus muellerianus*), by monotypy. [Name of type-species initially misspelled *gridoboi*, p. 257; correct spelling as *gribodoi*, p. 258.]

Taxonomic history

Chalepoxenus in Myrmicinae, Leptothoracini: Donisthorpe, 1943c: 632; all subsequent authors to the following.

Chalepoxenus in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Chalepoxenus as junior synonym of *Leptothorax*: Brown, 1973b: 179 [provisional].

Chalepoxenus as genus: Kutter, 1973b: 269.

Junior synonym of CHALEPOXENUS

Leonomyrma Arnol'di, 1968: 1809. Type-species: *Leonomyrma spinosa*, by original designation.

Taxonomic history

Leonomyrma as junior synonym of *Leptothorax*: Brown, 1973b: 181 [provisional].

Leonomyrma as genus: Arnol'di & Dlussky, 1978: 544.

Leonomyrma as junior synonym of *Chalepoxenus*: Buschinger, 1987: 117.

Genus references

Bernard, 1967: 222 (diagnosis); Kutter, 1973b: 269 (all species revision, key); Buschinger, Erhardt, Fischer & Ofer, 1988: 383 (*Chalepoxenus* literature review); Radchenko, 1989a: 41 (former U.S.S.R. species key); Bolton, 1995a: 1048 (census); Bolton, 1995b: 145 (catalogue); Cagniant & Espadaler, 1997: 268 (Morocco species key).

Genus DILOBOCONDYLA

Dilobocondyla: Santschi, 1910: 283. Type-species: *Atopomyrmex selebensis*, by subsequent designation of Wheeler, W.M. 1911b: 162.

Taxonomic history

Dilobocondyla in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 240 [subtribe Podomyrmini]; all subsequent authors to the following.

Dilobocondyla in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Dilobocondyla in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Junior synonym of *DILOBOCONDYLA*

Mesomyrma Stitz, 1911: 363 [as subgenus of *Podomyrma*]. Type-species: *Podomyrma* (*Mesomyrma*) *cataulacoidea*, by monotypy.

Taxonomic history

Mesomyrma as subgenus of *Podomyrma*: Stitz, 1911: 363; Forel, 1917: 244.

Mesomyrma as junior synonym of *Dilobocondyla*: Emery, 1912b: 102; Wheeler, W.M. 1922a: 677; Emery, 1924: 240.

Genus references

Emery, 1924: 240 (diagnosis, catalogue); Wheeler, W.M. 1924b: 248 (all species key); Chapman & Capco, 1951: 115 (Asia checklist); Bolton, 1995a: 1049 (census); Bolton, 1995b: 171 (catalogue); Shattuck, 1999: 133 (Australia synopsis).

Genus *FORMICOXENUS*

Formicoxenus Mayr, 1855: 413. Type-species: *Myrmica nitidula*, by monotypy.

Taxonomic history

Formicoxenus in Myrmicinae: Mayr, 1855: 413 [Myrmicidae]; Dalla Torre, 1893: 62.

Formicoxenus in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Formicoxenus in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Formicoxenus in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 264; all subsequent authors except the following.

Formicoxenus in Myrmicinae, Formicoxenini: Forel, 1893a: 165; Bolton, 1994: 105.

Formicoxenus as junior synonym of *Stenamma*: Mayr, 1863: 422; Roger, 1863b: 25; Emery & Forel, 1879: 457.

Formicoxenus as junior synonym of *Leptothorax*: Brown, 1973b: 180 [provisional].

Formicoxenus as genus: André, 1882c: 273; all subsequent authors except the above; Francoeur, Loisel & Buschinger, 1985: 343.

Junior synonym of *FORMICOXENUS*

Symmyrmica Wheeler, W.M. 1904a: 3. Type-species: *Symmyrmica chamberlini*, by monotypy.

Taxonomic history

Symmyrmica in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Symmyrmica in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Symmyrmica in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 263; all subsequent authors.

Symmyrmica as junior synonym of *Leptothorax*: Brown, 1973b: 185 [provisional].

Symmyrmica as junior synonym of *Formicoxenus*: Francoeur, Loisel & Buschinger, 1985: 347.

Genus references

André, 1882c: 273 (Europe & Algeria species); Dalla Torre, 1893: 62 (catalogue); Emery, 1924: 263 (*Symmyrmica* diagnosis, catalogue); Emery, 1924: 264 (diagnosis, catalogue); Bernard, 1967: 225 (diagnosis); Smith, D.R. 1979: 1398 (*Symmyrmica* catalogue); Francoeur, Loisel & Buschinger, 1985: 374 (diagnosis, all species revision, key); Kupyanskaya, 1990: 148 (Far Eastern Russia species key); Radchenko, 1994a: 111 (South Siberia species key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 206 (catalogue).

Genus *GAUROMYRMEX* stat. rev., tribal transfer

Gauromyrmex Menozzi, 1933b: 146. Type-species: *Gauromyrmex bengakalisi*, by monotypy. [Appendix 1.6, p. 269.]

Taxonomic history

Gauromyrmex in Myrmicinae, Solenopsidini: Donisthorpe, 1943c: 646; Chapman & Capco, 1951: 161.

Gauromyrmex as junior synonym of *Wollenhovia*: Brown, 1973b: 180 [provisional]; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 105; Bolton, 1995b: 422.

Gauromyrmex as genus: Brown, 1953b: 10; Wu, J. & Wang, 1995: 86.

Junior synonyms of *GAUROMYRMEX*

Solenomyrma Karavaiev, 1935: 103. Type-species: *Solenomyrma acanthina*, by monotypy.

Taxonomic history

Solenomyrma in Myrmicinae, Solenomyrmini: Donisthorpe, 1943d: 726; Chapman & Capco, 1951: 161.

Solenomyrma as junior synonym of *Gauromyrmex*: Brown, 1953b: 10.

Acalama Smith, M.R. 1949a: 206. Type-species: *Acalama donisthorpei* (junior synonym of *Gauromyrmex acanthinus*), by original designation.

Taxonomic history

Acalama incertae sedis in Myrmicinae: Smith, M.R. 1949a: 206.

Acalama as junior synonym of *Gauromyrmex*: Brown, 1953b: 10.

Genus references

Chapman & Capco, 1951: 161 (Asia *Solenomyrma*, *Gauromyrmex* checklists).

Genus HARPAGOXENUS

Harpagoxenus Forel, 1893a: 167.

Taxonomic history

[Replacement name for *Tomognathus* Mayr, 1861: 56; junior homonym of *Tomognathus* Agassiz, 1850: 376 (Pisces).]

Harpagoxenus in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Harpagoxenus in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Harpagoxenus in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 265; all subsequent authors to the following.

Harpagoxenus in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Homonym replaced by **HARPAGOXENUS**

Tomognathus Mayr, 1861: 56. Type-species: *Myrmica sublaevis*, by monotypy.

Taxonomic history

[Junior homonym of *Tomognathus* Agassiz, 1850: 376 (Pisces).]

Tomognathus in Myrmicinae: Mayr, 1861: 56 [Myrmicidae]; Mayr, 1865: 23 [Myrmicidae]; Emery & Forel, 1879: 457 [Myrmicidae]; Dalla Torre, 1893: 64.

Tomognathus in Myrmicinae, Formicoxenini: Forel, 1893a: 165.

Tomognathus in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Tomognathus in Myrmicinae, Myrmicini: Emery, 1895e: 769.

Genus references

Mayr, 1863: 456 (catalogue); Mayr, 1865: 23 (diagnosis); André, 1882c: 279 (Europe & Algeria species); Dalla Torre, 1893: 63 (catalogue); Emery, 1924: 265 (diagnosis, catalogue); Creighton, 1950a: 284 (North America species key); Bernard, 1967: 223 (diagnosis); Smith, D.R. 1979: 1398 (North America catalogue); Radchenko, 1994a: 112 (South Siberia species key); Bolton, 1995a: 1049 (census); Bolton, 1995b: 211 (catalogue).

Genus LEPTOTHORAX

Leptothorax Mayr, 1855: 431. Type-species: *Formica acervorum*, by subsequent designation of Bingham, 1903: 214.

Taxonomic history

[Type-species not *Myrmica clypeata*, unjustified subsequent designation by Emery, 1912c: 271; repeated in Wheeler, W.M. 1913a: 79 and Emery, 1924: 248.]

Leptothorax in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Leptothorax in Myrmicinae: Mayr, 1855: 431 [Myrmicidae]; Mayr, 1861: 57 [Myrmicidae]; Mayr, 1865: 20 [Myrmicidae]; Emery & Forel, 1879: 458 [Myrmicidae]; Dalla Torre, 1893: 122.

Leptothorax in Myrmicinae, Myrmicini: Forel, 1895a: 125; Emery, 1895e: 769; Forel, 1899: 54; Wheeler, W.M. 1910d: 139; Wheeler, W.M. 1915e: 63; Kusnezov, 1964: 57 (anachronism).

Leptothorax in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Leptothorax in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Arnold, 1916: 257; Forel, 1917: 244; Wheeler, W.M. 1922a: 664; Emery, 1924: 247; subsequent authors to the following.

Leptothorax in Myrmicinae, Formicoxenini: Bolton, 1994: 105; MacKay, 2000: 267. [See also Appendix 1.7, p. 270.]

Junior synonyms of LEPTOTHORAX

Mychothorax Ruzsky, 1904: 288. Type-species: *Formica acervorum*, by original designation.

Taxonomic history

Mychothorax as subgenus of *Leptothorax*: Ruzsky, 1905: 609; Emery, 1915e: 24; Emery, 1916b: 176; Forel, 1917: 245; Wheeler, W.M. 1922a: 679; Emery, 1924: 260; Creighton, 1950a: 274.

Mychothorax as junior synonym of *Leptothorax*: Smith, M.R. 1950: 29; Brown, 1973b: 182 [provisional]; Bolton, 1982: 319. [*Leptothorax* and *Mychothorax* share the same type-species, synonymy is therefore absolute.]

Doronomyrmex Kutter, 1945: 485. Type-species: *Doronomyrmex pacis*, by monotypy.

Taxonomic history

Doronomyrmex in Myrmicinae, Leptothoracini: Dlussky & Fedoseeva, 1988: 79.

Doronomyrmex in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Doronomyrmex as junior synonym of *Leptothorax*: Brown, 1973b: 180 [provisional]; Heinze, 1998: 195.

Genus references

Mayr, 1855: 433 (Austria species key); Mayr, 1861: 58 (Europe species key); Roger, 1863b: 26, 28, 30 (catalogue); Mayr, 1863: 426, 428, 456 (*Leptothorax*, *Macromischa*, *Temnothorax* catalogues); Mayr, 1865: 19, 20, 21 (*Macromischa*, *Leptothorax*, *Temnothorax* diagnoses); Mayr, 1868b: 83 (*Baltic Amber species key); André, 1874: 188 (Europe species key); Forel, 1874: 84 (Switzerland species key); André, 1883a: 293 (Europe & Algeria species key); Mayr, 1886c: 451 (U.S.A. species key); Cresson, 1887: 261 (U.S.A. catalogue); Nasonov, 1889: 70 (Russia species key); Emery, 1891b: 5 (North Africa species key); Dalla Torre, 1893: 120, 122 (*Macromischa*, *Leptothorax* catalogues); Emery, 1895b: 317 (North America species key); Emery, 1896c: 58 (Neotropical species key); Bingham, 1903: 215 (India, Sri Lanka & Burma species key); Wheeler, W.M. 1903b: 223 (North America species key); Ruzsky, 1905: 570 (Russian Empire species key); Wasmann, 1906: 16 (Luxemburg species key); Wheeler, W.M. 1908a: 141 (*Macromischa* species key); Santschi, 1909: 460 (*L. rottenbergi* group key); Bondroit, 1910: 496 (Belgium species key); Stitz, 1914: 60 (Central Europe species key); Crawley, 1914: 91 (Britain species key); Donisthorpe, 1915: 147 (Britain

species key); Emery, 1916b: 176 (Italy species key); Wheeler, W.M. 1916g: 581 (U.S.A., Connecticut species key); Arnold, 1916: 257 (diagnosis, South Africa species key); Bondroit, 1918: 117 (France & Belgium species key); Mann, 1920: 408 (*Macromischa* species key); Wheeler, W.M. 1922a: 677 (*Macromischa* subgenera key); Wheeler, W.M. 1922a: 679 (*Leptothorax* subgenera key); Wheeler, W.M. 1922a: 890 (Afrotropical catalogue); Wheeler, W.M. 1922a: 1029 (Malagasy catalogue); Emery, 1924: 245 (*Macromischa* catalogue); Emery, 1924: 247 (diagnosis, subgenera key, catalogue); Emery, 1924: 249 (*L. (Goniothorax)* diagnosis, catalogue); Emery, 1924: 251 (*L. (Leptothorax)* diagnosis, catalogue); Emery, 1924: 259 (*L. (Temnothorax)* diagnosis, catalogue); Emery, 1924: 260 (*L. (Dichothorax)* & *L. (Mychothorax)* diagnoses, catalogues); Emery, 1924: 264 (*Symmyrma* review, catalogue); Karavaiev, 1927a: 266 (Ukraine species key); Donisthorpe, 1927: 163 (Britain species key); Kuznetsov-Ugamsky, 1927c: 38 (Turkistan species key); Wheeler, W.M. 1931b: 31 (*Macromischa*, *Croesomyrmex*, *Antillaemyrmex* checklists); Arnol'di, 1933b: 598 (Russia species key); Menozzi, 1933a: 68 (Israel species key); Karavaiev, 1934: 134 (Ukraine species key); Wheeler, W.M. 1937: 463 (*Macromischa* checklist); Menozzi, 1939: 307 (Himalaya & Tibet species key); Stitz, 1939: 158 (Germany species key); Smith, M.R. 1939: 503 (U.S.A. *Macromischa* species key); Kratochvíl, 1941: 89 (Central Europe species key); Novák & Sadil, 1941: 89 (Central Europe species key); Cole, 1942: 369 (U.S.A., Utah species key); Holgersen, 1943: 172 (Norway species key); Holgersen, 1944: 198 (Norway species key); Kratochvíl, Novák & Snoflák, 1944: 123 (Czechoslovakia males, key); Buren, 1944: 286 (U.S.A., Iowa species key); Boven, 1947: 178 (Belgium species key); Creighton, 1950a: 251, 256 (North America *Macromischa*, *Leptothorax* species keys); Chapman & Capco, 1951: 110 (Asia checklist); Smith, M.R. 1952b: 97 (U.S.A. *L. tricarlinatus* complex, key); Bernard, 1956a: 151 (Western Europe species groups); Kusnezov, 1958c: 266 (subgenera key); Boven, 1959: 8 (Netherlands species key); Gregg, 1963: 380 (U.S.A., Colorado species key); Wheeler, G.C. & Wheeler, J. 1963: 139 (U.S.A., North Dakota species key); Collingwood, 1964: 99 (Britain species key); Bernard, 1967: 185 (*Temnothorax* diagnosis, Western Europe species key); Bernard, 1967: 187 (diagnosis, Western Europe species key); Bernard, 1967: 224 (*Doronomyrmex* diagnosis); Boven, 1970: 20 (Netherlands species key); Arnol'di, 1971: 1824 (Kazakhstan species key); Kempf, 1972a: 132, 135 (Neotropical *Leptothorax*, *Macromischa* catalogues); Alayo, 1974: 15 (*Macromischa* Cuba species key); Bolton & Collingwood, 1975: 5 (Britain species key); Tarbinsky, 1976: 83 (Kirgizstan species key); Boven, 1977: 94 (Belgium species key); Kutter, 1977b: 103 (Switzerland species key); Arnol'di & Dlussky, 1978: 540 (former European U.S.S.R. species key); Collingwood, 1978: 83 (Iberian Peninsula species key); Collingwood, 1979: 68 (Fennoscandia & Denmark species key); Baroni Urbani, 1978b: 533 (*L. (Macromischa)* species revision, key); Smith, D.R. 1979: 1391 (North America catalogue); Buschinger, 1981: 211 (*Doronomyrmex* review); Allred, 1982: 440 (U.S.A., Utah species key); Bolton, 1982: 319 (diagnosis, review of genus, Afrotropical species key); Gösswald, 1985: 303 (Germany species key); Wheeler, G.C. & Wheeler, J. 1986b: 51 (U.S.A., Nevada species key); Nilsson & Douwes, 1987: 60 (Norway species key); Agosti & Collingwood, 1987: 273 (Balkans species key); Dlussky & Soyunov, 1988: 29 (former U.S.S.R. *Temnothorax* species); Hölldobler & Wilson, 1990: 13 (synoptic classification); Dlussky, Soyunov & Zabelin, 1990: 184, 188 (Turkmenistan species key); Kupyanskaya, 1990: 136 (Far Eastern Russia species key); Brandão, 1991: 349 (Neotropical catalogue); Morisita, Kubota, Onoyama, *et al.*, 1992: 26 (Japan species key); Atanasov & Dlussky, 1992: 129 (Bulgaria species key); Arakelian, 1994: 52 (Armenia species key); Radchenko, 1994a: 111 (South Siberia species key); Radchenko, 1994c: 146 (Central & Eastern Palaearctic species key); Bolton, 1995a: 1050 (census); Bolton, 1995b: 235 (catalogue); Douwes, 1995: 89 (Sweden species key); Kupyanskaya, 1995: 347 (Far Eastern Russia species key); Wu, J. & Wang, 1995: 108 (China species key); Collingwood & Agosti, 1996: 325 (Saudi Arabia species key); Seifert, 1996: 13 (Central Europe *Doronomyrmex* species key); Seifert, 1996: 119 (Central Europe species key); Skinner & Allen, 1996: 45 (Britain species key); Cagniant & Espadaler, 1997: 260 (Morocco species key); Collingwood & Prince, 1998: 16 (Portugal species key); Terayama & Onoyama, 1999: 73 (Japan species key); MacKay, 2000: 265, 288, 297 (New World *L. (Myrafant)* species revision key, Mexico & Guatemala species key, species complexes key); Fontenla Rizo, 2001: 15 (Cuba *Macromischa* species key); Czechowski, Radchenko & Czechowska, 2002: 143 (Poland species key).

Genus *MYRMOXENUS*

Myrmoxenus Ruzsky, 1902a: 474. Type-species: *Myrmoxenus gordiagini*, by monotypy.

Taxonomic history

Myrmoxenus in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Myrmoxenus in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 262; all subsequent authors.

Myrmoxenus as junior synonym of *Epimyrmex*: [Buschinger, 1990: 245 (provisional synonym)]; Bolton, 1994: 105 [seniority incorrect, *Myrmoxenus* has priority; see below.]

Junior synonyms of *MYRMOXENUS*

Epimyrmex Emery, 1915a: 262. Type-species: *Epimyrmex kraussei*, by original designation.

Taxonomic history

Epimyrmex in Myrmicinae, Leptothoracini: Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 263; all subsequent authors to the following.

Epimyrmex in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Epimyrmex as junior synonym of *Leptothorax*: Brown, 1973b: 180 [provisional].

Epimyrmex as junior synonym of *Myrmoxenus*: Schulz & Sanetra, 2002: 162.

Myrmetaerus Soudek, 1925a: 33. Type-species: *Myrmetaerus microcellatus* (junior synonym of *Epimyrmma gordiagini*), by monotypy.

Taxonomic history

[*Myrmetaerus* also described as new by Soudek, 1925b: 14.]

Myrmetaerus in Myrmicinae, Leptothoracini: Donisthorpe, 1943c: 667.

Myrmetaerus as junior synonym of *Leptothorax*: Brown, 1973b: 182 [provisional].

Myrmetaerus as junior synonym of *Camponotus*: Snelling, 1981: 404 (error).

Myrmetaerus as junior synonym of *Myrmoxenus*: Buschinger, Winter & Faber, 1984: 336.

Subgenera of *MYRMOXENUS* include the nominal plus the following.

Subgenus MYRMOXENUS (*GONEPIMYRMA*)

Gonepimyrmma Bernard, 1948: 146 [as subgenus of *Epimyrmma*]. Type-species: *Epimyrmma (Gonepimyrmma) africana*, by monotypy.

Taxonomic history

Gonepimyrmma junior synonym of *Epimyrmma*: Brown, 1973b: 181 [provisional].

Genus references

Emery, 1916b: 189 (Italy species key); Bondroit, 1918: 139 (France & Belgium species key); Emery, 1924: 262 (*Myrmoxenus* diagnosis, catalogue); Emery, 1924: 263 (*Epimyrmma* diagnosis, catalogue); Menozzi, 1931b: 36 (diagnosis, all species key); Bernard, 1967: 216 (diagnosis, Western Europe species key); Kutter, 1973c: 281 (species, notes); Kutter, 1977b: 138 (Switzerland species key); Buschinger, Fischer, Guthy, Jessen & Winter, 1987: 253 (partial revision); Agosti & Collingwood, 1987: 276 (Balkans species key); Buschinger, 1989: 265 (evolution, speciation); Bolton, 1995a: 1049 (census); Bolton, 1995b: 188 (catalogue); Seifert, 1996: 118 (Central Europe species key); Cagniant & Espadaler, 1997: 268 (Morocco species key).

Genus NESOMYRMEX stat. rev.

Nesomyrmex Wheeler, W.M. 1910a: 259. Type-species: *Nesomyrmex clavipilis*, by monotypy. [Appendix 1.7, p. 270.]

Taxonomic history

[*Nesomyrmex* is the oldest synonym of *Goniothorax* Emery (a junior homonym, see below) and hence is the first available replacement name for *Goniothorax* Emery: Smith, M.R. 1950: 30.]

Nesomyrmex as genus: Wheeler, W.M. 1910a: 259; Francoeur & Loisele, 1988b: 43 (possibly valid); Hölldobler & Wilson, 1990: 14 [junior synonyms of *Nesomyrmex* left behind under *Leptothorax*]; Jaffe, 1993: 11.

Nesomyrmex as subgenus of *Leptothorax*: Emery, 1915e: 24; Forel, 1917: 244; Wheeler, W.M. 1922a: 679; Smith, M.R. 1950: 30; Smith, M.R. 1951: 816; Kempf, 1959b: 393; Brown, 1971: 4; Kempf, 1972a: 133; Smith, D.R. 1979: 1391; MacKay, 2000: 272 (in key).

Nesomyrmex as junior synonym of *Goniothorax*: Emery, 1924: 249; Donisthorpe, 1943c: 674. [*Goniothorax* is a junior homonym and hence *Nesomyrmex* takes priority as first available replacement name.]

Nesomyrmex as junior synonym of *Leptothorax*: Brown, 1973b: 183 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105; Bolton, 1995b: 39.

Homonym replaced by NESOMYRMEX

Goniothorax Emery, 1896c: 58 (diagnosis in key) [as subgenus of *Leptothorax*]. Type-species: *Leptothorax vicinus*, by subsequent designation of Wheeler, W.M. 1911b: 164.

Taxonomic history

[Junior homonym of *Goniothorax* Milne-Edwards, 1879: 103 (Crustacea).]

Goniothorax as subgenus of *Leptothorax*: Wheeler, W.M. 1910d: 139; Forel, 1917: 244; Wheeler, W.M. 1922a: 679, 890, 1029; Emery, 1924: 249; Creighton, 1950a: 259.

[*Goniomyrmex* Ashmead, 1905b: 383, incorrect subsequent spelling.]

Tetramyrmma Forel, 1912g: 766 [as subgenus of *Dilobocondyla*]. Type-species: *Dilobocondyla (Tetramyrmma) braunsi*, by monotypy. Syn. n. [Appendix 1.7, p. 270.]

Taxonomic history

Tetramyrmma in Myrmicinae, Tetramoriini: Emery, 1914a: 42; Forel, 1917: 245; Arnold, 1917: 358; Wheeler, W.M. 1922a: 664; Emery, 1924: 291; Donisthorpe, 1943d: 732; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 80 (anachronism).

Tetramyrmma incertae sedis in Myrmicinae: Bolton, 1976: 291.

Tetramyrmma as subgenus of *Dilobocondyla*: Forel, 1912g: 766.

Tetramyrmma as genus: Forel, 1913a: 122; Arnold, 1917: 358; Wheeler, W.M. 1922a: 664; Emery, 1924: 291; Donisthorpe, 1943d: 732; Bolton, 1976: 291.

Tetramyrmma as junior synonym of *Leptothorax*: Bolton, 1982: 319; Bolton, 1994: 105.

Caulomyrmma Forel, 1914c: 233 [as subgenus of *Leptothorax*]. Type-species: *Leptothorax echinatinodis*, by original designation.

Taxonomic history

Caulomyrmma as junior synonym of *Nesomyrmex*: Forel, 1915b: 364 [provisional]; Emery, 1915e: 24; Wheeler, W.M. 1922a: 679.

Caulomyrmma as subgenus of *Leptothorax*: Forel, 1914c: 233; Forel, 1917: 244.

Caulomyrmma as junior synonym of *Goniothorax*: Emery, 1924: 249 (incorrect procedure as *Goniothorax* is a junior homonym for which *Nesomyrmex* is the first available replacement name; see Smith, M.R. 1950: 30.)

Caulomyrma as junior synonym of *Leptothorax*: Brown, 1973b: 182 [provisional].

Limnomyrmex Arnold, 1948: 222. Type-species: *Limnomyrmex stramineus*, by original designation.

Taxonomic history

Limnomyrmex as junior synonym of *Nesomyrmex*: Brown, 1971: 4.

Ireneopone Donisthorpe, 1946a: 242. Type-species: *Ireneopone gibber*, by original designation. **Syn. n.** [Appendix 1.8, p. 272.]

Taxonomic history

Ireneopone in Myrmicinae, Tetramoriini: Donisthorpe, 1946a: 243; Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism).

Ireneopone incertae sedis in Myrmicinae: Bolton, 1976: 292; Dlussky & Fedoseeva, 1988: 81.

Ireneopone in Myrmicinae, Formicoxenini: Bolton, 1994: 105; Bolton, 1995a: 1050; Bolton, 1995b: 217.

Meia Pagliano & Scaramozzino, 1990: 5.

Taxonomic history

[Unnecessary replacement name for *Goniothorax* Emery, 1896c: 58 (junior homonym of *Goniothorax* Milne-Edwards, 1879: 103). *Nesomyrmex* is the first available replacement name for *Goniothorax* Emery, therefore *Meia* is automatically a junior synonym of *Nesomyrmex*: Bolton, 1994: 105.]

Genus references

Emery, 1896c: 58 (Neotropical species key); Arnold, 1916: 258 (South Africa species key); Arnold, 1917: 358 (*Tetramyrma* diagnosis); Wheeler, W.M. 1922a: 890, 908 (Afrotropical *L. (Goniothorax)*, *Tetramyrma* catalogues); Wheeler, W.M. 1922a: 1029 (Malagasy *L. (Goniothorax)* catalogue); Emery, 1924: 249 (*L. (Goniothorax)* diagnosis, catalogue); Emery, 1924: 291 (*Tetramyrma* review, catalogue); Kempf, 1959b: 394 (Neotropical *Leptothorax (Nesomyrmex)* species revision, key); Kempf, 1972a: 133 (Neotropical *Leptothorax (Nesomyrmex)* catalogue); Kempf, 1975b: 367 (additions to 1959b key); Bolton, 1982: 319 (diagnosis, review of genus, Afrotropical species key); Hölldobler & Wilson, 1990: 13 (synoptic classification); Brandão, 1991: 349 (Neotropical catalogue); Bolton, 1995b: 235 (catalogue).

Genus OCHETOMYRMEX tribal transfer

Ochetomyrmex Mayr, 1878: 871. Type-species: *Ochetomyrmex semipolitus*, by monotypy.

Taxonomic history

Ochetomyrmex in Myrmicinae: Dalla Torre, 1893: 135.

Ochetomyrmex in Myrmicinae, Myrmicini: Forel, 1895a: 126.

Ochetomyrmex in Myrmicinae, Attini: Emery, 1895e: 770.

Ochetomyrmex in Myrmicinae, Tetramoriini: Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 141.

Ochetomyrmex in Myrmicinae, Solenopsidini: Kempf, 1975b: 358; Wheeler, G.C. & Wheeler, J. 1991: 133; Jaffe, 1993: 10.

Ochetomyrmex in Myrmicinae, Ochetomyrmecini: Emery, 1914a: 42; Forel, 1917: 245; Wheeler, W.M. 1922a: 664; Emery, 1924: 293; Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106.

Junior synonym of OCHETOMYRMEX

Brownidris Kusnezov, 1956: 25 (diagnosis in key). Type-species: *Brownidris argentinus*, by original designation.

Taxonomic history

[*Brownidris* also described as new by Kusnezov, 1957a: 275.]

Brownidris in Myrmicinae, Solenopsidini: Kusnezov, 1957a: 275; Kusnezov, 1962b: 159; Kempf, 1972a: 41.

Brownidris in Myrmicinae, *Megalomyrmex* genus group: Ettershank, 1966: 81.

Brownidris in Myrmicinae, *Megalomyrmecini*: Dlussky & Fedoseeva, 1988: 80.

Brownidris as junior synonym of *Ochetomyrmex*: Kempf, 1975b: 355; Bolton, 1994: 106.

Brownidris as genus: Wheeler, G.C. & Wheeler, J. 1985: 257 (anachronism); Dlussky & Fedoseeva, 1988: 80 (anachronism).

Genus references

Dalla Torre, 1893: 135 (catalogue); Emery, 1924: 293 (diagnosis, catalogue); Kusnezov, 1962b: 157 (*Brownidris* species key); Ettershank, 1966: 109 (*Brownidris* diagnosis, review of genus, checklist); Kempf, 1972a: 41, 168 (*Brownidris*, *Ochetomyrmex* catalogues); Kempf, 1975b: 355 (review of genus); Brandão, 1991: 361 (catalogue); Bolton, 1987: 266 (notes); Bolton, 1995a: 1051 (census); Bolton, 1995b: 293 (catalogue); Fernández, 2003: 638 (all species revision, key).

Genus PERONOMYRMEX

Peronomyrmex Viehmeyer, 1922: 212. Type-species: *Peronomyrmex overbecki*, by monotypy.

Taxonomic history

Peronomyrmex in Myrmicinae, Dacetini: Donisthorpe, 1943c: 682; Brown, 1948b: 102.

Peronomyrmex in Myrmicinae, Meranoplinae: Brown, 1949f: 84.

Peronomyrmex incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.

Peronomyrmex in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Genus references

Taylor, 1970b: 209 (review of genus); Taylor & Brown, D.R. 1985: 74 (Australia catalogue); Taylor, 1987a: 53 (Australia checklist); Bolton, 1995a: 1051 (census); Bolton, 1995b: 316 (catalogue); Shattuck, 1999: 151 (Australia synopsis).

Genus *PODOMYRMA*

Podomyrma Smith, F. 1859a: 145. Type-species: *Podomyrma femorata*, by subsequent designation of Wheeler, W.M. 1911b: 170.

Taxonomic history

Podomyrma in Myrmicidae: Smith, F. 1871: 327.

Podomyrma in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Podomyrma in Myrmicinae: Mayr, 1865: 24 [Myrmicidae]; Dalla Torre, 1893: 59.

Podomyrma in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Podomyrma in Myrmicinae, Myrmecini: Ashmead, 1905b: 383; Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 236 [subtribe Podomyrmini]; all subsequent authors to the following.

Podomyrma in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Podomyrma in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Junior synonyms of *PODOMYRMA*

**Acrostigma* Emery, 1891a: 149 [as subgenus of *Podomyrma*]. Type-species: **Podomyrma (Acrostigma) mayri*, by monotypy.

Taxonomic history

**Acrostigma* as junior synonym of *Podomyrma*: Dalla Torre, 1893: 159.

Dacryon Forel, 1895c: 421. Type-species: *Dacryon omniparens*, by monotypy.

Taxonomic history

Dacryon in Myrmicinae, Tetramoriini: Ashmead, 1905b: 383.

Dacryon in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Dacryon in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 235; Donisthorpe, 1943c: 637.

Dacryon as junior synonym of *Podomyrma*: Brown, 1973b: 179 [provisional]; Taylor & Brown, D.R. 1985: 80; Taylor, 1987a: 57; Bolton, 1994: 105; Bolton, 1995b: 26; Shattuck, 1999: 157.

Pseudopodomyrma Crawley, 1925: 40. Type-species: *Pseudopodomyrma clarki*, by monotypy.

Taxonomic history

Pseudopodomyrma in Myrmicinae, Myrmecini: Donisthorpe, 1943d: 722.

Pseudopodomyrma as junior synonym of *Podomyrma*: Brown, 1973b: 184 [provisional]; Taylor & Brown, D.R. 1985: 80.

Genus references

Roger, 1863b: 27 (catalogue); Mayr, 1863: 443 (catalogue); Mayr, 1865: 24 (diagnosis); Mayr, 1867a: 107 (diagnosis); Mayr, 1876: 109 (Australia species key); Dalla Torre, 1893: 59 (catalogue); Viehmeyer, 1914a: 521 (Papua species key); Emery, 1924: 235, 236 (*Dacryon*, *Podomyrma* diagnoses, catalogues); Chapman & Capco, 1951: 119 (Asia checklist); Taylor & Brown, D.R. 1985: 80 (Australia catalogue); Taylor, 1987a: 57 (Australia checklist); Bolton, 1995a: 1052 (census); Bolton, 1995b: 338 (catalogue); Taylor, 1999: 173 (Australia species nomenclature); Shattuck, 1999: 157 (Australia synopses).

Genus *POECILOMYRMA*

Poecilomyrma Mann, 1921: 445. Type-species: *Poecilomyrma senirewae*, by original designation.

Taxonomic history

Poecilomyrma in Myrmicinae, Myrmecini: Donisthorpe, 1943c: 684.

Poecilomyrma in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Poecilomyrma in Myrmicinae, Formicoxenini: Bolton, 1994: 105; Bolton, 1995b: 339.

Poecilomyrma as subgenus of *Leptothorax*: Wheeler, W.M. 1922a: 679 (footnote).

Poecilomyrma as genus: Mann, 1921: 445, Bolton, 1994: 89.

Genus *PROTOMOGNATHUS*

Protomognathus Wheeler, W.M. 1905a: 3 [as subgenus of *Tomognathus*]. Type-species: *Tomognathus americanus*, by monotypy.

Taxonomic history

Protomognathus in Myrmicinae, Leptothoracini: Donisthorpe, 1943c: 688.

Protomognathus in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Protomognathus as junior synonym of *Harpagoxenus*: Emery, 1924: 265; all subsequent authors to the following.

Protomognathus as genus: Cover, in Hölldobler & Wilson, 1990: 65; Bolton, 1995b: 369.

Genus *ROMBLONELLA*

Romblonella Wheeler, W.M. 1935a: 5. Type-species: *Romblonella grandinodis* (junior synonym of *Romblonella opaca*), by original designation.

Taxonomic history

Romblonella in Myrmicinae, Meranoplini: Wheeler, W.M. 1935a: 6 (in key); all subsequent authors to the following.

Romblonella in Myrmicinae, Myrmecini: Smith, M.R. 1953b: 163.

Romblonella in Myrmicinae, Meranoplini: Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16.

Romblonella in Myrmicinae, Leptothoracini: Taylor, 1991a: 294.

Romblonella in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Genus references

Chapman & Capco, 1951: 114 (Asia checklist); Smith, M.R. 1953a: 76 (diagnosis, all species revision, key); Taylor, 1991a: 283 (review of genus, partial key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 381 (catalogue); Shattuck, 1999: 164 (Australia synopsis).

Genus *ROTASTRUMA*

Rotastruma Bolton, 1991: 8. Type-species: *Rotastruma recava*, by original designation.

Taxonomic history

Rotastruma in Myrmicinae, Leptothoracini: Bolton, 1991: 8.

Rotastruma in Myrmicinae, Formicoxenini: Bolton, 1994: 105; Bolton, 1995a: 1052; Bolton, 1995b: 382.

Genus references

Bolton, 1991: 8 (all species key).

Genus *STEREOMYRMEX*

Stereomyrmex Emery, 1901c: 115. Type-species: *Stereomyrmex horni*, by monotypy.

Taxonomic history

Stereomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Stereomyrmex in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Stereomyrmex in Myrmicinae, Stereomyrmecini: Emery, 1914a: 40; Forel, 1917: 242; Emery, 1922c: 119; Wheeler, W.M. 1922a: 661; all subsequent authors to the following.

Stereomyrmex in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Junior synonym of *STEREOMYRMEX*

Willowsiella Wheeler, W.M. 1934a: 174. Type-species: *Willowsiella dispar*, by original designation. **Syn. n.** [Appendix 1.10, p. 273.]

Taxonomic history

Willowsiella in Myrmicinae, Meranoplini: Wheeler, W.M. 1934a: 176; Wheeler, W.M. 1935a: 6 (in key); Donisthorpe, 1943d: 736; Dlussky & Fedoseeva, 1988: 80; Hölldobler & Wilson, 1990: 16.

Willowsiella in Myrmicinae, Leptothoracini: Taylor, 1991a: 294.

Willowsiella in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Genus references

Bingham, 1903: 218 (diagnosis); Emery, 1922c: 119 (diagnosis, catalogue); Chapman & Capco, 1951: 173 (Asia checklist); Taylor, 1991a: 294 (*Willowsiella* discussion); Bolton, 1995a: 1053 (census); Bolton, 1995b: 394, 424 (catalogue); Shattuck, 1999: 173 (Australia synopsis).

Genus *TEMNOTHORAX* stat. rev.

Temnothorax Mayr, 1861: 68. Type-species: *Myrmica recedens*, by monotypy.

Taxonomic history

Temnothorax in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Temnothorax in Myrmicinae: Mayr, 1861: 68 [Myrmicidae]; Mayr, 1865: 21 [Myrmicidae]; Emery & Forel, 1879: 459 [Myrmicidae]; Dalla Torre, 1893: 122.

Temnothorax in Myrmicinae, Leptothoracini: Forel, 1917: 245; Emery, 1924: 259; Donisthorpe, 1943d: 731.

Temnothorax as subgenus of *Leptothorax*: Forel, 1892f: 315; Dalla Torre, 1893: 122; Ruzsky, 1905: 607; Wheeler, W.M. 1910d: 139; Emery, 1915e: 24; Forel, 1915c: 27; Emery, 1916b: 176; Forel, 1917: 245; Bondroit, 1918: 117; Wheeler, W.M. 1922a: 679; Emery, 1924: 259; Donisthorpe, 1943d: 731.

Temnothorax as genus: Bernard, 1967: 185; Arnol'di & Dlussky, 1978: 543; Dlussky & Fedoseeva, 1988: 79; Atanasov & Dlussky, 1992: 125.

Temnothorax as junior synonym of *Leptothorax*: Forel, 1890a: lxxii; Baroni Urbani, 1971b: 96; Brown, 1973b: 185 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105.

Junior synonyms of *TEMNOTHORAX*

Macromischa Roger, 1863a: 184. Type-species: *Macromischa purpurata*, by subsequent designation of Wheeler, W.M. 1911b: 166. **Syn. n.**

Taxonomic history

Macromischa in Myrmicinae: Mayr, 1865: 19 [Myrmicidae]; Dalla Torre, 1893: 120.

Macromischa in Myrmicinae, Myrmicini: Emery, 1895e: 769; Forel, 1899: 56; Wheeler, W.M. 1910d: 139.

Macromischa in Myrmicinae, Stenammini: Ashmead, 1905b: 383.

Macromischa in Myrmicinae, Leptothoracini: Emery, 1914a: 42; Forel, 1917: 244; Wheeler, W.M. 1922a: 664; Emery, 1924: 245; all subsequent authors.

Macromischa as genus: Roger, 1863a: 184; Mayr, 1865: 19; Dalla Torre, 1893: 120; Emery, 1895e: 769; Emery, 1914a: 42; Wheeler, W.M. 1922a: 664; Emery, 1924: 245; subsequent authors except the entries below; Kempf, 1972a: 135; Smith, D.R. 1979: 1390; Wheeler, G.C. & Wheeler, J. 1985: 257; Hölldobler & Wilson, 1990: 14.

Macromischa as subgenus of *Leptothorax*: Baroni Urbani, 1978b: 398; MacKay, 2000: 288 (in key).

Macromischa as junior synonym of *Leptothorax*: Brown, 1973b: 181 [provisional]; Snelling, 1986: 154; Bolton, 1994: 105; Bolton, 1995b: 34.

Dichothorax Emery, 1895b: 323 [as subgenus of *Leptothorax*]. Type-species: *Leptothorax (Dichothorax) pergandei*, by subsequent designation of Wheeler, W.M. 1911b: 161. Syn. n.

Taxonomic history

Dichothorax as genus: Ashmead, 1905b: 383.

Dichothorax as subgenus of *Leptothorax*: Emery, 1895b: 323; Wheeler, W.M. 1910d: 139; Forel, 1917: 245; Wheeler, W.M. 1922a: 679; Emery, 1924: 260; Donisthorpe, 1943c: 638; Creighton, 1950a: 259; Smith, D.R. 1979: 1395; MacKay, 2000: 272 (in key).

Dichothorax as junior synonym of *Leptothorax*: Brown, 1973b: 180 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105.

Antillaemyrmex Mann, 1920: 408 [as subgenus of *Macromischa*]. Type-species: *Macromischa (Antillaemyrmex) terricola*, by original designation. Syn. n.

Taxonomic history

Antillaemyrmex as genus: Wheeler, W.M. 1931b: 4 (in text), 32.

Antillaemyrmex as junior synonym of *Macromischa*: Smith, M.R. 1937: 849; Smith, M.R. 1939: 502; Baroni Urbani, 1978b: 398; Bolton, 1994: 105.

Croesomyrmex Mann, 1920: 408 [as subgenus of *Macromischa*]. Type-species: *Macromischa (Croesomyrmex) wheeleri*, by original designation. Syn. n.

Taxonomic history

Croesomyrmex as genus: Wheeler, W.M. 1931b: 4 (in text), 32.

Croesomyrmex as junior synonym of *Macromischa*: Smith, M.R. 1937: 849; Smith, M.R. 1939: 502; Baroni Urbani, 1978b: 398; Bolton, 1994: 105.

Myrmammophilus Menozzi, 1925b: 29 [as subgenus of *Leptothorax*]. Type-species: *Leptothorax (Myrmammophilus) finzii*, by monotypy. Syn. n.

Taxonomic history

Myrmammophilus in Myrmicinae, Leptothoracini: Donisthorpe, 1943c: 665.

Myrmammophilus as junior synonym of *Leptothorax*: Brown, 1973b: 182 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105.

Myrafant Smith, M.R. 1950: 30 [as subgenus of *Leptothorax*]. Type-species: *Leptothorax curvispinosus*, by original designation. Syn. n.

Taxonomic history

Myrafant as subgenus of *Leptothorax*: Smith, M.R. 1951: 817; Smith, D.R. 1979: 1391; MacKay, 2000: 270.

Myrafant as junior synonym of *Leptothorax*: Brown, 1973b: 182 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105.

Icothorax Hamann & Klemm, 1967: 415 [as subgenus of *Leptothorax*]. Type-species: *Leptothorax (Icothorax) megalops*, by monotypy. Syn. n.

Taxonomic history

Icothorax as junior synonym of *Chalepoxenus*: Hölldobler & Wilson, 1990: 13.

Icothorax as junior synonym of *Myrafant*: Baroni Urbani, 1978b: 556; Bolton, 1995b: 32.

Icothorax as junior synonym of *Leptothorax*: Brown, 1973b: 182 [provisional]; Bolton, 1982: 319; Bolton, 1994: 105.

Genus references

See under *LEPTOTHORAX*.

Genus TERATANER

Terataner Emery, 1912b: 103. Type-species: *Atopomyrmex foreli*, by original designation.

Taxonomic history

Terataner in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 241 [subtribe Podomyrmini]; all subsequent authors to the following.

Terataner in Myrmicinae, Podomyrmini: Dlussky & Fedoseeva, 1988: 79.

Terataner in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Junior synonym of TERATANER

Tranetera Arnold, 1952b: 130 [as subgenus of *Terataner*]. Type-species: *Terataner bottegoides*, by original designation.

Taxonomic history

Tranetera junior synonym of *Terataner*: Brown, 1973b: 185 [provisional]; Bolton, 1981b: 288.

Genus references

Wheeler, W.M. 1922a: 885, 1028 (Afrotropical, Malagasy catalogues); Emery, 1924: 241 (diagnosis, catalogue); Arnold, 1952b: 129 (review of genus); Kugler, C. 1979a: 260 (sting structure); Bolton, 1981b: 288 (diagnosis, review of genus); Bolton, 1981b: 290 (Afrotropical species revision, key); Bolton, 1981b: 297 (Malagasy species review, key); Bolton, 1995a: 1053 (census); Bolton, 1995b: 403 (catalogue).

Genus VOMBISIDRIS

Vombisidris Bolton, 1991: 1. Type-species: *Vombisidris philax*, by original designation.

Taxonomic history

Vombisidris in Myrmicinae, Leptothoracini: Bolton, 1991: 2.

Vombisidris in Myrmicinae, Formicoxenini: Bolton, 1994: 105.

Genus references

Taylor & Brown, D.R. 1985: 65 (Australia catalogue (as *Leptothorax*)); Taylor, 1989: 605 (Australia species key (as *Leptothorax*)); Bolton, 1991: 2 (all species key); Bolton, 1995a: 1053 (census); Bolton, 1995b: 423 (catalogue); Shattuck, 1999: 172 (Australia synopsis).

Genus *XENOMYRMEX* tribal transfer

Xenomyrmex Forel, 1885: 369. Type-species: *Xenomyrmex stollii*, by monotypy.

Taxonomic history

Xenomyrmex in Myrmicinae: Dalla Torre, 1893: 64.
Xenomyrmex in Myrmicinae, Formicoxenini: Forel, 1893a: 165.
Xenomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Forel, 1899: 52; Wheeler, W.M. 1910d: 139.
Xenomyrmex in Myrmicinae, Stenammini: Ashmead, 1905b: 383.
Xenomyrmex in Myrmicinae, Solenopsidini: Emery, 1914a: 41 [subtribe Monomoriini]; Forel, 1917: 243; Emery, 1922c: 188; Wheeler, W.M. 1922a: 663; Wheeler, W.M. 1931a: 131; all subsequent authors to the following.
Xenomyrmex incertae sedis in Myrmicinae: Ettershank, 1966: 81.
Xenomyrmex in Myrmicinae, Solenopsidini: Smith, D.R. 1979: 1384.
Xenomyrmex in Myrmicinae, Archaeomyrmecini?: Brandão, 1991: 391.
Xenomyrmex in Myrmicinae, Myrmecini: Kempf, 1972a: 259; Dlussky & Fedoseeva, 1988: 79; Jaffe, 1993: 11.

Xenomyrmex in Myrmicinae, Metaponini?: Hölldobler & Wilson, 1990: 16; Bolton, 1994: 105.

Junior synonym of *XENOMYRMEX*

Myrmecinelletta Wheeler, W.M. 1922d: 1. Type-species: *Myrmecinelletta panamana*, by original designation.

Taxonomic history

Myrmecinelletta in Myrmicinae, Myrmecini: Wheeler, W.M. 1922d: 3; Donisthorpe, 1943c: 665.
Myrmecinelletta as junior synonym of *Xenomyrmex*: Wheeler, W.M. 1931a: 129.

Genus references

Dalla Torre, 1893: 64 (catalogue); Emery, 1922c: 188 (diagnosis, catalogue); Wheeler, W.M. 1931a: 129 (diagnosis, all species key); Creighton, 1957b: 6 (all species key); Ettershank, 1966: 150 (diagnosis, review of genus, checklist); Smith, D.R. 1979: 1384 (North America catalogue); Bolton, 1995a: 1053 (census); Bolton, 1995b: 424 (catalogue).

Genera *incertae sedis* in Formicoxenini**Genus **STIGMOMYRMEX***

**Stigmomyrmex* Mayr, 1868b: 95. Type-species: *Stigmomyrmex venustus*, by subsequent designation of Wheeler, W.M. 1911b: 173.

Taxonomic history

**Stigmomyrmex* in Myrmicidae, Pheidolidae: Emery, 1877a: 81.
**Stigmomyrmex* in Myrmicinae: Mayr, 1868b: 95 [Myrmicidae]; Dalla Torre, 1893: 78.
**Stigmomyrmex* in Myrmicinae, Teramoriini: Wheeler, W.M. 1915e: 70; subsequent authors to the following.
**Stigmomyrmex incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.
**Stigmomyrmex* in Myrmicinae, Formicoxenini: Bolton, 1994: 105; Bolton, 1995b: 395.

Genus *TRICYTARUS* unrecognisable taxon

Tricytarus Donisthorpe, 1947b: 187. Type-species: *Tricytarus parvumgulatus*, by original designation.

Taxonomic history

Tricytarus incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259 (incomprehensible entry).
Tricytarus incertae sedis in Myrmicinae: Hölldobler & Wilson, 1990: 16.
Tricytarus in Myrmicinae, Formicoxenini?: Bolton, 1994: 105; Bolton, 1995b: 422.
 [*Tricytarus* unrecognisable taxon: a male-based genus, description inadequate. Type-material not present in California Academy of Sciences, San Francisco, U.S.A., nor in The Natural History Museum, London, U.K.; presumed lost.]

Tribe STEGOMYRMECINI

Stegomyrmecini Wheeler, W.M. 1922a: 655, 668. Type-genus: *Stegomyrmex*.

Taxonomic history

Stegomyrmecini as tribe of Myrmicinae: Wheeler, W.M. 1922a: 655, 668 [*Stegomyrmecini*]; Wheeler, G.C. & Wheeler, J. 1976: 60; Wheeler, G.C. & Wheeler, J. 1985: 258; Diniz, 1990: 277; Bolton, 1994: 106. [*Taxonomy*, p. 70.]

Genus: *Stegomyrmex*.

Tribe and genus references

Emery, 1924: 314 (diagnosis, catalogue); Kempf, 1972a: 242 (catalogue); Diniz, 1990: 277 (review, all species key); Bolton, 1995a: 1052 (census); Bolton, 1995b: 392 (catalogue).

Genus of *Stegomyrmecini*Genus *STEGOMYRMEX*

Stegomyrmex Emery, 1912b: 99. Type-species: *Stegomyrmex connectens*, by monotypy.

Taxonomic history

Stegomyrmex in Myrmicinae, Dacetini: Emery, 1912b: 101; Emery, 1914a: 42; Forel, 1917: 246; Emery, 1924: 314; Donisthorpe, 1943d: 727.

Stegomyrmex in Myrmicinae, *Stegomyrmecini*: Wheeler, W.M. 1922a: 668; Kempf, 1972a: 242; Diniz, 1990: 277; Bolton, 1994: 106.

Stegomyrmex incertae sedis in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.

Genus references: see above.

Tribe MYRMECININI

Myrmecinini Ashmead, 1905b: 383. Type-genus: *Myrmecina*.

Taxonomic history

Myrmecinini as tribe of Myrmicinae: Ashmead, 1905b: 383; Emery, 1912b: 105; Emery, 1914a: 37; Arnold, 1916: 190; Forel, 1917: 244; Wheeler, W.M. 1922a: 659; Emery, 1924: 229; all subsequent authors. [*Taxonomy*, p. 71.]

Junior synonym of MYRMECININI

Archaeomyrmex Mann, 1921: 449. Type-genus: *Archaeomyrmex* (junior synonym of *Myrmecina*).

Taxonomic history

Archaeomyrmecini as tribe of Myrmicinae: Mann, 1921: 449; Wheeler, W.M. 1922a: 656.

Archaeomyrmecini as junior synonym of Myrmecinini: Brown, 1971: 2

Genera (extant): *Acanthomyrmex*, *Myrmecina*, *Perissomyrmex*, *Pristomyrmex*.

Genera (extinct) *incertae sedis*: **Enneamerus*, **Stiphromyrmex*.

Tribe references

Emery, 1912b: 105 (genera key); Emery, 1914a: 37, 41 (diagnosis (in key), synoptic classification); Forel, 1917: 244 (synoptic classification); Wheeler, W.M. 1922a: 670 (genera key); Emery, 1924: 229 (diagnosis, genera key, catalogue); Wheeler, G.C. & Wheeler, J. 1976: 55 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 13 (catalogue).

Genera of Myrmecinini

Genus *ACANTHOMYRMEX*

Acanthomyrmex Emery, 1893a: cclxxvi. Type-species: *Acanthomyrmex lucirolae*, by subsequent designation of Bingham, 1903: 191.

Taxonomic history

[*Acanthomyrmex* also described as new by Emery, 1893d: 244. *Acanthomyrmex* misplaced in Formicinae, Lasiini (probably in error for *Acanthomyops*): Ashmead: 1905b: 384.]

Acanthomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 139.

Acanthomyrmex in Myrmicinae, Myrmecinini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 234; all subsequent authors except the following.

Acanthomyrmex in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16 (error).

Genus references

Emery, 1924: 234 (diagnosis, catalogue); Chapman & Capco, 1951: 114 (Asia checklist); Moffett, 1986: 66 (diagnosis, all species revision, key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1047 (census); Bolton, 1995b: 53 (catalogue).

Genus *MYRMECINA*

Myrmecina Curtis, 1829: 265. Type-species: *Myrmecina latreillii* (junior synonym of *Myrmecina graminicola*), by monotypy.

Taxonomic history

Myrmecina in Poneridae, Myrmicidae: Smith, F. 1858b: 132.

Myrmecina in Myrmicidae: Smith, F. 1871: 327; Cresson, 1887: 261.

Myrmecina in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Myrmecina in Myrmicinae: Mayr, 1855: 420 [Myrmicidae]; Mayr, 1861: 73 [Myrmicidae]; Mayr, 1865: 21 [Myrmicidae]; Emery & Forel, 1879: 457 [Myrmicidae]; Dalla Torre, 1893: 61.

Myrmecina in Myrmicinae, Myrmicini: Emery, 1895e: 769; Wheeler, W.M. 1910d: 139.

Myrmecina in Myrmicinae, Myrmecinini: Ashmead, 1905b: 383; Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 230; all subsequent authors.

Junior synonym of MYRMECINA

Archaeomyrmex Mann, 1921: 448. Type-species: *Archaeomyrmex cacabau*, by original designation.

Taxonomic history

Archaeomyrmex in Myrmicinae, *Archaeomyrmecini*: Mann, 1921: 449; Wheeler, W.M. 1922a: 663.

Archaeomyrmex as junior synonym of *Myrmecina*: Brown, 1971: 1.

Genus references

Smith, F. 1858b: 132 (diagnosis); Roger, 1863b: 33 (catalogue); Mayr, 1863: 429 (catalogue); Mayr, 1865: 21 (diagnosis); André, 1882c: 275 (Europe & Algeria species); Cresson, 1887: 261 (U.S.A. catalogue); Dalla Torre, 1893: 61 (catalogue); Bingham, 1903: 197 (diagnosis); Emery, 1916b: 171 (Italy species key); Mann, 1919: 337 (Papuan species key); Emery, 1924: 230 (diagnosis, catalogue); Smith, M.R. 1948: 239 (U.S.A. species key); Creighton, 1950a: 246 (North America review); Chapman & Capco, 1951: 117 (Asia checklist); Bernard, 1967: 226 (diagnosis); Smith, D.R. 1979: 1399 (North America catalogue); Taylor & Brown, D.R. 1985: 71 (Australia catalogue); Taylor, 1987a: 47 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1992: 54 (Japan species key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 274 (catalogue); Terayama, 1996: 31 (Japan species key); Lin & Wu, 1998: 89 (Taiwan species key); Rigato, 1999: 83 (West Palaearctic species key); Shattuck, 1999: 147 (Australia synopsis); Zhou, 2001: 138 (China, Guangxi species key).

Genus PERISSOMYRMEX

Perissomyrmex Smith, M.R. 1947e: 281. Type-species: *Perissomyrmex snyderi*, by original designation.

Taxonomic history

Perissomyrmex in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16.

Perissomyrmex in Myrmicinae, Archaeomyrmecini?: Brandão, 1991: 391.

Perissomyrmex in Myrmicinae, Myrmecini: Smith, M.R. 1947e: 281; Kempf, 1972a: 182; Dlussky & Fedoseeva, 1988: 79; Bolton, 1994: 105; Longino & Hartley, 1995: 199.

Genus references

Kempf, 1972a: 182 (catalogue); Longino & Hartley, 1995: 195 (review); Bolton, 1995a: 1051 (census); Bolton, 1995b: 316 (catalogue).

Genus PRISTOMYRMEX

Pristomyrmex Mayr, 1866b: 903. Type-species: *Pristomyrmex pungens*, by monotypy.

Taxonomic history

Pristomyrmex in Myrmicidae: Mayr, 1866b: 903.

Pristomyrmex in Myrmicidae, Myrmicidae: Emery, 1877a: 81.

Pristomyrmex in Myrmicinae: Dalla Torre, 1893: 62.

Pristomyrmex in Myrmicinae, Myrmicini: Emery, 1895e: 769; Ashmead, 1905b: 383; Wheeler, W.M. 1910d: 139.

Pristomyrmex in Myrmicinae, Myrmecini: Emery, 1912b: 105; Emery, 1914a: 41; Forel, 1917: 244; Wheeler, W.M. 1922a: 663; Emery, 1924: 233; all subsequent authors except the entries below; Bolton, 1994: 105.

Pristomyrmex in Myrmicinae, Tetramoriini: Bernard, 1953: 251.

Pristomyrmex in Myrmicinae, Pheidolini: Hölldobler & Wilson, 1990: 16.

Junior synonyms of PRISTOMYRMEX

Odontomyrmex André, 1905: 207. Type-species: *Odontomyrmex quadridentatus*, by monotypy.

Taxonomic history

Odontomyrmex in Myrmicinae, Myrmicini: Wheeler, W.M. 1910d: 139.

Odontomyrmex as subgenus of *Pristomyrmex*: Forel, 1917: 244; Wheeler, W.M. 1922a: 682; Chapman & Capco, 1951: 121 (anachronism).

Odontomyrmex as junior synonym of *Pristomyrmex*: Mann, 1919: 341; Emery, 1924: 233; Donisthorpe, 1943c: 676; Brown, 1953b: 9; Taylor, 1965a: 35; Bolton, 1981b: 282.

Hylidris Weber, 1941: 190. Type-species: *Hylidris myersi* (junior synonym of *Pristomyrmex africanus*), by original designation.

Taxonomic history

Hylidris in Myrmicinae, Myrmecini: Weber, 1941: 183; Donisthorpe, 1943c: 651.

Hylidris as junior synonym of *Pristomyrmex*: Brown, 1953b: 9.

Dodous Donisthorpe, 1946b: 145. Type-species: *Dodous trispinosus*, by original designation.

Taxonomic history

Dodous in Myrmicinae, Solenopsidini: Donisthorpe, 1946b: 145.

Dodous as junior synonym of *Pristomyrmex*: Brown, 1971: 3.

Genus references

Dalla Torre, 1893: 62 (catalogue); Forel, 1903: 696 (India & Sri Lanka species key); Bingham, 1903: 193 (diagnosis); Emery, 1924: 233 (diagnosis, catalogue); Chapman & Capco, 1951: 121, 161 (Asia *Pristomyrmex*, *Dodous* checklists); Taylor, 1965a: 37 (Australia species revision, key); Taylor, 1968b: 63 (supplement to previous); Bolton, 1981b: 282 (diagnosis, Afrotropical species revision, key); Taylor & Brown, D.R. 1985: 85 (Australia catalogue); Taylor, 1987a: 64 (Australia checklist); Morisita, Kubota, Onoyama, *et al.*, 1992: 57 (Japan species key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 365 (catalogue); Lin & Wu, 1998: 94 (Taiwan species key); Shattuck, 1999: 159 (Australia synopsis); Xu & Zhang, 2002: 69 (China species key); Wang, M. 2003: 393 (all species revision, key).

Genera *incertae sedis* in MyrmeciniGenus **ENNEAMERUS*

**Enneamerus* Mayr, 1868b: 98. Type-species: **Enneamerus reticulatus*, by monotypy.

Taxonomic history

**Enneamerus* in Myrmicidae, Pheidolidae: Emery, 1877a: 81.

**Enneamerus* in Myrmicinae: Mayr, 1868b: 98 [Myrmicidae]; Dalla Torre, 1893: 78.

**Enneamerus* in Myrmicinae, Tetramoriini: Wheeler, W.M. 1915e: 69.

**Enneamerus* in Myrmicinae, Myrmecariini: Donisthorpe, 1943c: 643.

**Enneamerus incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 80.

**Enneamerus* in Myrmicinae, Myrmecini: Bolton, 1994: 105; Bolton, 1995b: 188.

Genus **STIPHROMYRMEX*

**Stiphromyrmex* Wheeler, W.M. 1915e: 67. Type-species: **Stigmomyrmex robustus*, by original designation.

Taxonomic history

**Stiphromyrmex* in Myrmicinae, Myrmecini: Wheeler, W.M. 1915e: 67; Donisthorpe, 1943d: 729.

**Stiphromyrmex incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 81.

**Stiphromyrmex* in Myrmicinae, Myrmecini: Bolton, 1994: 105; Bolton, 1995b: 395.

Tribe METAPONINI

Metaponini Forel, 1911c: 447. Type-genus: *Metapone*.

Taxonomic history

Metaponini as tribe of Ponerinae: Forel, 1911c: 446.

Metaponini as tribe of Myrmicinae: Emery, 1914a: 34; Forel, 1917: 240; Emery, 1921b: 19; Wheeler, W.M. 1922a: 655; all subsequent authors. [*Taxonomy*, p. 71.]

Genus: *Metapone*.

Tribe and genus references

Emery, 1914a: 34 (diagnosis (in key)); Wheeler, W.M. 1919c: 178 (all species key); Emery, 1921b: 19 (diagnosis, catalogue); Chapman & Capco, 1951: 114 (Asia checklist); Kusnezov, 1960a: 119 (morphology); Kugler, C. 1978a: 444 (sting structure); Taylor & Brown, D.R. 1985: 69 (Australia catalogue); Taylor, 1987a: 40 (Australia checklist); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 258 (catalogue); Shattuck, 1999: 144 (Australia synopsis).

Genus of Metaponini

Genus *METAPONE*

Metapone Forel, 1911c: 447. Type-species: *Metapone greeni*, by monotypy.

Taxonomic history

Metapone in Ponerinae, Metaponini: Forel, 1911c: 446.

Metapone in Myrmicinae, Metaponini: Emery, 1912b: 96; Emery, 1914a: 40; Forel, 1917: 240; Wheeler, W.M. 1919c: 177; Emery, 1921b: 19; Wheeler, W.M. 1922a: 661; all subsequent authors except the entry below; Bolton, 1994: 105.

Metapone in Cerapachyinae: Kusnezov, 1960a: 124.

Genus references: see above.

Tribe MELISSOTARSINI

Melissotarsini Emery, 1901a: 36. Type-genus: *Melissotarsus*.

Taxonomic history

Melissotarsini as tribe of Ponerinae: Emery, 1901a: 36 [Melissotarsini].

Melissotarsini as tribe of Myrmicinae: Ashmead, 1905b: 383; Forel, 1911c: 446; Emery, 1914a: 35; Arnold, 1916: 188; Forel, 1917: 242; Emery 1922e: 118; Wheeler, W.M. 1922a: 656; all subsequent authors. [*Taxonomy*, p. 72.]

Genera: *Melissotarsus*, *Rhopalomastix*.

Tribe references

Emery, 1914a: 35, 40 (diagnosis (in key), synoptic classification); Forel, 1917: 242 (synoptic classification); Wheeler, W.M. 1922a: 661 (genera key); Wheeler, W.M. 1922a: 823, 1021 (Afrotropical, Malagasy catalogues); Wheeler, G.C. & Wheeler, J. 1976: 53 (larvae, review & synthesis); Dlussky & Fedoseeva, 1988: 79 (synoptic classification); Hölldobler & Wilson, 1990: 16 (synoptic classification); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1041 (census); Bolton, 1995b: 12 (catalogue).

Genera of Melissotarsini

Genus *MELISSOTARSUS*

Melissotarsus Emery, 1877b: 378. Type-species: *Melissotarsus beccarii*, by monotypy.

Taxonomic history

Melissotarsus in Myrmicinae: Dalla Torre, 1893: 74.

Melissotarsus in Myrmicinae, Solenopsidini: Forel, 1893a: 164; Emery, 1895e: 770; Wheeler, W.M.

1910d: 141.

Melissotarsus in Myrmicinae, Melissotarsini: Ashmead, 1905b: 383; Emery, 1914a: 40; Arnold, 1916: 188; Forel, 1917: 242; Emery, 1922c: 119; Wheeler, W.M. 1922a: 661; all subsequent authors.

Genus references

Dalla Torre, 1893: 74 (catalogue); Arnold, 1916: 188 (diagnosis); Emery, 1922c: 119 (diagnosis, catalogue); Wheeler, W.M. 1922a: 823, 1021 (Afrotropical, Malagasy catalogues); Bolton, 1982: 335 (diagnosis, Afrotropical species revision, key); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1050 (census); Bolton, 1995b: 250 (catalogue); Fisher & Robertson, 1999: 78 (workers, silk production).

Genus *RHOPALOMASTIX*

Rhopalomastix Forel, 1900a: 24. Type-species: *Rhopalomastix rothneyi*, by monotypy.

Taxonomic history

Rhopalomastix in Myrmicinae, Solenopsidini: Wheeler, W.M. 1910d: 140.

Rhopalomastix in Myrmicinae, Melissotarsini: Emery, 1914a: 40; Forel, 1917: 242; Emery, 1922c: 118; Wheeler, W.M. 1922a: 661; all subsequent authors.

Genus references

Emery, 1922c: 118 (diagnosis, catalogue); Wheeler, W.M. 1929c: 95 (review of genus); Chapman & Capco, 1951: 111 (Asia checklist); Taylor & Brown, D.R. 1985: 86 (Australia catalogue); Taylor, 1987a: 66 (Australia checklist); Bolton, 1994: 105 (synoptic classification); Bolton, 1995a: 1052 (census); Bolton, 1995b: 377 (catalogue); Xu, 1999: 130 (China species key); Shattuck, 1999: 161 (Australia synopsis).

Genera *incertae sedis* in Myrmicinae

Genus **ATTOPSIS*

**Attopsis* Heer, 1850: 155. Type-species: **Attopsis longipennis*, by subsequent designation of Wheeler, W.M. 1911b: 159.

Taxonomic history

**Attopsis* in Myrmicinae: Dalla Torre, 1893: 139; Handlirsch, 1907: 877.

**Attopsis* in Myrmicinae, Cataulacini: Donisthorpe, 1943c: 627.

**Attopsis incertae sedis* in Myrmicinae: Bolton, 1994: 106; Bolton, 1995b: 77.

Genus **CEPHALOMYRMEX*

**Cephalomyrmex* Carpenter, 1930: 37. Type-species: **Cephalomyrmex rotundatus*, by original designation.

Taxonomic history

**Cephalomyrmex incertae sedis* in Myrmicinae: Carpenter, 1930: 37; Hölldobler & Wilson, 1990: 16; Bolton, 1994: 106; Bolton, 1995b: 140.

Genus **ELECTROMYRMEX*

**Electromyrmex* Wheeler, W.M. 1910d: 164 (by indication). Type-species: **Electromyrmex klebsi*, by monotypy.

Taxonomic history

[**Electromyrmex* Wheeler, W.M. 1908b: 413, *nomen nudum*. **Electromyrmex* also described as new by Wheeler, W.M. 1915e: 55 (diagnosis).]

**Electromyrmex* in Myrmicinae, Myrmicini: Wheeler, W.M. 1915e: 55; Donisthorpe, 1943c: 642.

**Electromyrmex incertae sedis* in Myrmicinae: Dlussky & Fedoseeva, 1988: 80; Bolton, 1994: 106; Bolton, 1995b: 187.

Genus **EOCENIDRIS*

**Eocenidris* Wilson, 1985b: 209. Type-species: **Eocenidris crassa*, by original designation.

Taxonomic history

**Eocenidris incertae sedis* in Myrmicinae: Wilson, 1985b: 209; Dlussky & Fedoseeva, 1988: 81; Bolton, 1994: 106; Bolton, 1995b: 188.

Genus **EOFORMICA*

**Eoformica* Cockerell, 1921: 38. Type-species: **Eoformica eocenica* (junior synonym of **Eoformica pingue*), by monotypy.

Taxonomic history

**Eoformica incertae sedis* in Ponerinae: Cockerell, 1921: 38.

**Eoformica* in Formicinae, Oecophyllini: Donisthorpe, 1943c: 643.

**Eoformica incertae sedis* in Myrmicinae: Carpenter, 1930: 17; Bolton, 1994: 106; Bolton, 1995b: 188.

Genus **EOMYRMEX*

**Eomyrmex* Hong, 1974: 138. Type-species: **Eomyrmex guchengziensis* (spelling emended from **guchengziensis*: Bolton, 1995b: 28), by monotypy.

Taxonomic history

**Eomyrmex incertae sedis* in Ponerinae: Hölldobler & Wilson, 1990: 11.

**Eomyrmex incertae sedis* in Myrmicinae: Bolton, 1994: 106; Bolton, 1995b: 188.

Genus **MIOSOLENOPSIS*

**Miosolenopsis* Zhang, 1989: 264. Type-species: **Miosolenopsis fossilis*, by original designation.

Taxonomic history

**Miosolenopsis* in Myrmicinae, Solenopsidini: Zhang, 1989: 264.

Genus **ZHANGIDRIS* nom. n.

**Zhangidris* nom. n., replacement name for **Heteromyrmex* Zhang.

Homonym replaced by **ZHANGIDRIS*

**Heteromyrmex* Zhang, 1989: 271. Type-species: **Heteromyrmex atopogaster*, by original designation.

Taxonomic history

[Junior homonym of *Heteromyrmex* Wheeler, W.M. 1920: 53 (Formicidae).]

Collective group name in Myrmicinae

**MYRMICITES*

**Myrmicites* Förster, 1891: 448 [collective group name, without included named taxa.]

Extinct Subfamilies of Formicidae

SUBFAMILY **ARMANIINAE*Subfamily **ARMANIINAE*

**Armaniidae* Dlussky, 1983: 66. Type-genus: **Armania*.

Taxonomic history

**Armaniinae* as junior synonym of Formicidae: Wilson, 1987: 49; Carpenter, 1992: 491.

**Armaniinae* as subfamily of Formicidae: Bolton, 1994: 187; Dlussky, 1996: 83.

Armaniinae* as family: Dlussky, 1983: 66 [Armaniidae*]; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7; Dlussky, 1999a: 63; Rasnitsyn, 2002: 249. [*Taxonomy*, p. 73.]

Tribe: **Armaniini*.

Tribe **ARMANIINI*

**Armaniidae* Dlussky, 1983: 66. Type-genus: **Armania*.

Taxonomic history

**Armaniini* as tribe of **Armaniinae*: Bolton, 1994: 187.

Genera: **Archaeopone*, **Armania*, **Dolichomyrma*, **Khetania*, **Poneropterus*, **Pseudarmania*.

Subfamily and Tribe references

Dlussky, 1983: 67 (genera key); Bolton, 1995b: 9 (catalogue).

Genera of **Armaniini*Genus **ARCHAEOPONE*

**Archaeopone* Dlussky, 1975: 120. Type-species: **Archaeopone kyzylzharica*, by original designation.

Taxonomic history

**Archaeopone* in Ponerinae: Dlussky, 1975: 120.

**Archaeopone* in **Armaniidae*: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Archaeopone* in **Sphecomyrminae*: Wilson, 1987: 49.

**Archaeopone* in **Armaniinae*: Bolton, 1994: 187.

**Archaeopone* as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Archaeopone* as genus: Dlussky, 1975: 120; Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 491; Bolton, 1994: 187; Bolton, 1995b: 75; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 5 (notes).

Genus **ARMANIA*

**Armania* Dlussky, 1983: 67. Type-species: **Armania robusta*, by original designation.

Taxonomic history

**Armania* in **Armaniidae*: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Armania* in **Sphecomyrminae*: Wilson, 1987: 49.

**Armania* in **Armaniinae*: Bolton, 1994: 187.

**Armania* as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Armania* as genus: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 491; Bolton, 1994: 187; Bolton, 1995b: 75; Grimaldi, Agosti & Carpenter, 1997: 7.

Junior synonym of **ARMANIA*

**Armaniella* Dlussky, 1983: 71. Type-species: **Armaniella curiosa*, by original designation.

Taxonomic history

**Armaniella* in *Armaniidae: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Armaniella* in *Sphecomyrminae: Wilson, 1987: 49.

**Armaniella* in *Armaniinae: Bolton, 1994: 187.

**Armaniella* as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Armaniella* as genus: Dlussky, 1983: 71; Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 491; Bolton, 1994: 187; Grimaldi, Agosti & Carpenter, 1997: 7.

**Armaniella* as junior synonym of **Armania*: Dlussky, 1999a: 63.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 5 (notes).

Genus **DOLICHOMYRMA*

**Dolichomyrma* Dlussky, 1975: 121. Type-species: **Dolichomyrma longiceps*, by original designation.

Taxonomic history

**Dolichomyrma incertae sedis* in Formicidae: Dlussky, 1975: 121.

**Dolichomyrma* in *Armaniidae: Dlussky, 1983: 66; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Dolichomyrma* in *Sphecomyrminae: Wilson, 1987: 49.

**Dolichomyrma* in *Armaniinae: Bolton, 1994: 187.

**Dolichomyrma* as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Dolichomyrma* as genus: Dlussky, 1975: 121; Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 491; Bolton, 1995b: 177; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 5 (notes).

Genus **KHETANIA*

**Khetania* Dlussky, 1999a: 65. Type-species: **Khetania mandibulata*, by original designation.

Taxonomic history

**Khetania* in *Armaniidae: Dlussky, 1999a: 65.

Genus **PONEROPTERUS*

**Poneropterus* Dlussky, 1983: 73. Type-species: **Poneropterus sphecodes*, by original designation.

Taxonomic history

**Poneropterus* in *Armaniidae: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Poneropterus* in *Sphecomyrminae: Wilson, 1987: 49.

**Poneropterus* in *Armaniinae: Bolton, 1994: 187.

**Poneropterus* junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Poneropterus* genus: Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 494; Bolton, 1995b: 363; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 5 (notes).

Genus **PSEUDARMANIA*

**Pseudarmania* Dlussky, 1983: 69. Type-species: **Pseudarmania rasnitsyni*, by original designation.

Taxonomic history

**Pseudarmania* in *Armaniidae: Dlussky, 1983: 67; Dlussky & Fedoseeva, 1988: 77; Grimaldi, Agosti & Carpenter, 1997: 7.

**Pseudarmania* in *Sphecomyrminae: Wilson, 1987: 49.

**Pseudarmania* in *Armaniinae: Bolton, 1994: 187.

**Pseudarmania* as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Pseudarmania* as genus: Dlussky, 1983: 69; Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 494 [misspelled **Pseudoarmania*]; Bolton, 1995b: 369; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 5 (notes).

SUBFAMILY *SPHECOMYRMINAE

Subfamily **SPHECOMYRMINAE*

*Sphecomyrminae Wilson & Brown, in Wilson, Carpenter & Brown, 1967: 6. Type-genus: **Sphecomyrma*.

Taxonomic history

*Sphecomyrminae as family: Dlussky, 1983: 77 [*Sphecomyrmidae]; Dlussky, 1987: 132 [*Sphecomyrmidae]; Dlussky & Fedoseeva, 1988: 77 [*Sphecomyrmidae].

*Sphecomyrminae as subfamily of Formicidae: Wilson, Carpenter & Brown, 1967: 6; Dlussky, 1975: 114; Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9; Bolton, 1994: 184; Dlussky, 1996: 83; Grimaldi, Agosti & Carpenter, 1997: 7; Dlussky, 1999a: 63. [*Taxonomy*, p. 74.]

Tribes: *Haidomyrmecini, *Sphecomyrmini.

Tribe *HAIDOMYRMECINI trib. n.

Genus: **Haidomyrmex* [type-genus].

Genus of *Haidomyrmecini

Genus **HAIDOMYRMEX*

**Haidomyrmex* Dlussky, 1996: 84. Type-species: **Haidomyrmex cerberus*, by original designation.

Taxonomic history

**Haidomyrmex* in *Sphecomyrminae: Dlussky, 1996: 84; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 24 (notes).

Tribe *SPHECOMYRMINI

*Sphecomyrminae Wilson & Brown, in Wilson, Carpenter & Brown, 1967: 6. Type-genus: **Sphecomyrma*.

Taxonomic history

*Sphecomyrmini as tribe of *Sphecomyrminae: Bolton, 1994: 187.

Genera: **Baikuris*, **Cretomyrma*, **Dlusskyidris*, **Sphecomyrma*.

Subfamily and tribe references

Wheeler, G.C. & Wheeler, J. 1972: 36 (diagnosis); Wilson, 1987: 44, 49 (review, synoptic classification); Bolton, 1995b: 15 (catalogue); Grimaldi, Agosti & Carpenter, 1997: 7 (review, diagnosis, phylogeny).

Genera of *Sphecomyrmini

Genus **BAIKURIS*

**Baikuris* Dlussky, 1987: 133. Type-species: **Baikuris mandibularis*; by original designation.

Taxonomic history

**Baikuris* in *Sphecomyrminae: Dlussky, 1987: 132; Dlussky & Fedoseeva, 1988: 77.

**Baikuris incertae sedis* in Formicidae: Hölldobler & Wilson, 1990: 18.

**Baikuris* in *Sphecomyrminae: Bolton, 1994: 187; Bolton, 1995b: 80; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 15 (review of genus).

Genus **CRETOMYRMA*

**Cretomyrma* Dlussky, 1975: 115. Type-species: **Cretomyrma arnoldii*, by original designation.

Taxonomic history

**Cretomyrma* in *Sphecomyrminae: Dlussky, 1987: 132; Dlussky & Fedoseeva, 1988: 77.

**Cretomyrma* in *Sphecomyrminae: Dlussky, 1975: 115; Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9; Bolton, 1994: 187; Bolton, 1995b: 166; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 9 (review of genus).

Genus **DLUSSKYIDRIS*

**Dlusskyidris* Bolton, 1994: 187.

Taxonomic history

[Replacement name for **Palaeomyrmex* Dlussky, 1975: 118; junior homonym of **Palaeomyrmex* Heer, 1865: 91 (Homoptera).]

**Dlusskyidris* in *Sphecomyrminae: Bolton, 1994: 187; Bolton, 1995b: 172; Grimaldi, Agosti & Carpenter, 1997: 7.

Homonym replaced by **DLUSSKYIDRIS*

**Palaeomyrmex* Dlussky, 1975: 118. Type-species: **Palaeomyrmex zherichini*, by original designation.

Taxonomic history

[Junior homonym of **Palaeomyrmex* Heer, 1865: 91 (Homoptera).]

**Palaeomyrmex* in *Sphecomyrminae: Dlussky, 1975: 118; Dlussky, 1983: 66.

**Palaeomyrmex* in *Sphecomyrminae: Dlussky, 1987: 132; Dlussky & Fedoseeva, 1988: 77.

**Palaeomyrmex* Dlussky as junior synonym of **Sphecomyrma*: Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9.

**Palaeomyrmex* Dlussky as genus: Dlussky & Fedoseeva, 1988: 77; Carpenter, 1992: 493.

Genus references

Grimaldi, Agosti & Carpenter, 1997: 9 (review of genus).

Genus **SPHECOMYRMA*

**Sphecomyrma* Wilson & Brown, in Wilson, Carpenter & Brown, 1967: 8. Type-species: **Sphecomyrma freyi*, by original designation.

Taxonomic history

**Sphecomyrma* in *Sphecomyrminae: Dlussky, 1987: 132; Dlussky & Fedoseeva, 1988: 77.

**Sphecomyrma* in **Sphecomyrminae*: Wilson, Carpenter & Brown, 1967: 6; Wilson, 1987: 49; Hölldobler & Wilson, 1990: 9; Bolton, 1994: 187; Bolton, 1995b: 392; Grimaldi, Agosti & Carpenter, 1997: 7.

Genus references

Wilson, Carpenter & Brown, 1967: 12 (phylogeny); Wilson, 1987: 49 (review of genus); Grimaldi, Agosti & Carpenter, 1997: 9 (review of genus).

SUBFAMILY **BROWNIMECIINAE* subfam. n.

Subfamily **BROWNIMECIINAE* subfam. n.

Tribe **BROWNIMECIINI* trib. n.

Genus: **Brownimecia* [type-genus]. [*Taxonomy*, p. 75.]

Genus of **Brownimeciini*

Genus **BROWNIMECIA*

**Brownimecia* Grimaldi, Agosti & Carpenter, 1997: 20. Type-species: **Brownimecia clavata*, by original designation.

Taxonomic history

**Brownimecia incertae sedis* in Ponerinae: Grimaldi, Agosti & Carpenter, 1997: 20.

SUBFAMILY **FORMICIINAE*

Subfamily **FORMICIINAE*

**Formiciinae* Lutz, 1986: 181. Type-genus: **Formicium*.

Taxonomic history

**Formiciinae* as subfamily of Formicidae: Lutz, 1986: 181; Lutz, 1990: 1; Hölldobler & Wilson, 1990: 17; Baroni Urbani, Bolton & Ward, 1992: 317; Bolton, 1994: 187. [*Taxonomy*, p. 75.]

Tribe: **Formiciini*.

Tribe **FORMICIINI*

**Formiciinae* Lutz, 1986: 181. Type-genus: **Formicium*.

Taxonomic history

**Formiciini* as tribe of **Formiciinae*: Bolton, 1994: 187; Bolton, 1995b: 206.

Genus: **Formicium*.

Subfamily, tribe and genus references

Lutz, 1986: 182 (diagnosis, all species revision, key, phylogeny); Hölldobler & Wilson, 1990: 24 (diagnosis); Lutz, 1990: 61 (subfamily synopsis; review of genus).

Genus of **Formiciini*

Genus **FORMICIUM*

**Formicium* Westwood, 1854: 393. Type-species: **Formicium brodiei*, by monotypy.

Taxonomic history

**Formicium* in **Pseudosiricidae*: Handlirsch, 1906: 577; Abe & Smith, 1991: 34 (in error).

**Formicium* in Formicidae: Cockerell, 1920: 279.

**Formicium* in Formicidae, **Formiciinae*: Lutz, 1986: 181; Lutz, 1990: 61; Bolton, 1994: 187.

**Formicium* as junior synonym of **Pseudosirex*: Handlirsch, 1906: 577 (in error); as senior synonym of **Pseudosirex*: Hölldobler & Wilson, 1990: 17 (in error).

**Formicium* as genus: Cockerell, 1920: 279; Lutz, 1986: 182; Lutz, 1990: 61, Hölldobler & Wilson, 1990: 17.

Junior synonyms of **FORMICIUM*

**Megapterites* Cockerell, 1920: 278. Type-species: **Megapterites mirabilis*, by monotypy.

Taxonomic history

**Megapterites* in **Pseudosiricidae*: Cockerell, 1920: 278; Abe & Smith, 1991: 53.

**Megapterites* in Formicidae, **Formiciinae*: Lutz, 1990: 61.

**Megapterites* as junior synonym of **Formicium*: Lutz, 1990: 61.

**Eoponera* Carpenter, 1929: 301. Type-species: **Eoponera berryi*, by original designation.

Taxonomic history

**Eoponera* as junior synonym of **Formicium*: Lutz, 1986: 189.

Genus references: see above.

TAXA INCERTAE SEDIS AND EXCLUSIONS FROM FORMICIDAE

Subfamily *incertae sedis* in Formicidae

Subfamily *PAEOSMINTHURINAE

*Paleosminthuridae Pierce & Gibron, 1962: 146. Type-genus: **Paleosminthurus*.

Taxonomic history

*Paleosminthurinae as family of Collembola: Pierce & Gibron, 1962: 146 [*Paleosminthuridae]; transferred to Formicidae (*incertae sedis*): Najt, 1987: 152.

*Paleosminthurinae as subfamily of Formicidae: Bolton, 1994: 187. [*Taxonomy*, p. 76.]

Genus of *Paleosminthurinae

Genus *PAEOSMINTHURUS

**Paleosminthurus* Pierce & Gibron, 1962: 146. Type-species: **Paleosminthurus juliae*, by monotypy.

Taxonomic history

**Paleosminthurus* in Collembola, *Paleosminthuridae: Pierce & Gibron, 1962: 146.

**Paleosminthurus incertae sedis* in Formicidae: Najt, 1987: 152.

**Paleosminthurus incertae sedis* in Formicinae: Hölldobler & Wilson, 1990: 18.

**Paleosminthurus* in *Paleosminthurinae: Bolton, 1994: 187 [provisional subfamily status]; Bolton, 1995b: 14, 311.

Genera *incertae sedis* in Formicidae

Genus *CALYPTITES

**Calypites* Scudder, 1877: 270 [as member of family Braconidae]. Type-species: **Calypites antediluvianum*, by monotypy.

Taxonomic history

**Calypites* in Braconidae: Scudder, 1891: 629; Donisthorpe, 1943c: 629.

**Calypites* in Formicidae: Wheeler, W.M. 1911b: 160.

**Calypites incertae sedis* in Formicidae: Carpenter, 1930: 21; Brown, 1973b: 179; Bolton, 1995b: 23, 83 (family unresolved).

Genus *CARIRIDRIS

**Cariridris* Brandão & Martins-Neto, 1990: 201. Type-species: **Cariridris bipetiolata*, by original designation.

Taxonomic history

**Cariridris incertae sedis* in Myrmecinae: Brandão & Martins-Neto, 1990: 203; Bolton, 1994: 73; Bolton, 1995b: 134.

**Cariridris* in Sphecidae: Verhaagh, 1996: 11.

**Cariridris incertae sedis* in Aculeata: Grimaldi, Agosti & Carpenter, 1997: 7; Ward & Brady, 2003 (in press).

Genus CONDYLODON

Condylodon Lund, 1831a: 131. Type-species: *Condylodon audouini*, by monotypy.

Taxonomic history

Condylodon in family Mutillidae?: Swainson & Shuckard, 1840: 173.

Condylodon as junior synonym of *Pseudomyrma*: Dalla Torre, 1893: 55.

Condylodon in Ponerinae?: Emery, 1921b: 28 (footnote).

Condylodon not in Pseudomyrmecinae, dubiously Ponerinae: Ward, 1990: 471.

Condylodon incertae sedis in Ponerinae: Bolton, 1994: 164; Bolton, 1995b: 146.

Genus HYPOCHIRA

Hypochira Buckley, 1866: 169 [as subgenus of *Formica*]. Type-species: *Formica (Hypochira) subspinosa*, by monotypy.

Taxonomic history

Hypochira in Formicinae, Formicini: Donisthorpe, 1943c: 652.

Hypochira incertae sedis in Dolichoderinae: Smith, D.R. 1979: 1422.

Hypochira as junior synonym of *Formica*: Dalla Torre, 1893: 192; Agosti, 1994: 106.

Hypochira as questionable junior synonym of *Dolichoderus*: Emery, 1895b: 338; Emery, 1925b: 271.

Hypochira incertae sedis in Formicidae: Bolton, 1995b: 31 (unrecognisable taxon).

Genus NOONILLA

Noonilla Petersen, 1968: 582. Type-species: *Noonilla copiosa*, by original designation.

Taxonomic history

Noonilla in Leptanillinae: Petersen, 1968: 582; Baroni Urbani, 1977a: 482; Dlussky & Fedoseeva, 1988: 79.

Noonilla in Leptanillinae, Leptanillini: Bolton, 1990b: 276; Hölldobler & Wilson, 1990: 12; Bolton, 1994:

70; Bolton, 1995b: 292;

Noonilla incertae sedis in Formicidae: Ogata, Terayama & Masuko, 1995: 33.

Genus references

Baroni Urbani, 1977a: 482 (review of genus); Ogata, Terayama & Masuko, 1995: 33 (review of genus).

Genus **SYNTAPHUS*

**Syntaphus* Donisthorpe, 1920: 84. Type-species: **Syntaphus wheeleri*, by original designation.

Taxonomic history

**Syntaphus* in Ponerinae, Ectatommini: Donisthorpe, 1920: 84; Donisthorpe, 1943d: 730; Hölldobler & Wilson, 1990: 10; Bolton, 1994: 164; Bolton, 1995b: 399.

Genera excluded from Formicidae

Genus **CRETACOFORMICA*

**Cretacoformica* Jell & Duncan, 1986: 190. Type-species: **Cretacoformica explicata*, by original designation.

Taxonomic history

**Cretacoformica incertae sedis* in Formicidae: Jell & Duncan, 1986: 190.

**Cretacoformica* excluded from Formicidae: Naumann, 1993: 355.

**Cretacoformica* dubiously Formicidae: Bolton, 1995b: 25, 166.

**Cretacoformica incertae sedis* in Apocrita: Grimaldi, Agosti & Carpenter, 1997: 7.

Genus *FORMILA*

Formila de Romand, 1846: xxxii. Type-species: *Formila chevrolatii*, by monotypy.

Taxonomic history

Formila in Formicidae: de Romand, 1846: xxxii.

Formila in Embolemidae: Muesebeck & Walkley, 1951: 1043.

Genus **MYRMICIUM*

**Myrmicium* Westwood, 1854: 396. Type-species: **Myrmicium heerii*, by monotypy.

Taxonomic history

**Myrmicium* in Myrmicinae: Dalla Torre, 1893: 108 (as **Myrmecium*, incorrect subsequent spelling); Bolton, 1995b: 37 (anachronism).

**Myrmicium* in **Myrmiciidae* (Symphyta): Maa, 1949: 17; Rasnitsyn, 1969: 17; Jarzembowski, 1993: 179.

**Myrmicium* in **Pseudosiricidae*: Handlirsch, 1906: 577; Abe & Smith, D.R. 1991: 53.

**Myrmicium* as junior synonym of **Pseudosirex*: Handlirsch, 1906: 577.

**Myrmicium* as junior synonym of *Myrmica*: Dalla Torre, 1893: 108; Forel, 1915c: 9.

**Myrmicium* as genus: Westwood, 1854: 396; Maa, 1949: 17; Rasnitsyn, 1969: 17; Jarzembowski, 1993: 179; Bolton, 1995b: 37.

Genus **PALAEOMYRMEX*

**Palaeomyrmex* Heer, 1865: 91. Type-species: **Palaeomyrmex prodromus*, by monotypy.

Taxonomic history

**Palaeomyrmex* in Formicidae: Heer, 1865: 91.

**Palaeomyrmex* in Homoptera: Handlirsch, 1906: 507.

Genus **PROMYRMICIUM*

**Promyrmicium* Baroni Urbani, 1971a: 362.

Taxonomic history

[Replacement name for **Myrmicium* Heer, 1870: 78; junior homonym of **Myrmicium* Westwood, 1854: 396.]

**Promyrmicium* in Formicidae, Myrmicinae: Baroni Urbani, 1971a: 362; Bolton, 1994: 106 (anachronism).

**Promyrmicium* in Ichneumonidae: Birket-Smith, 1977: 8.

Homonym replaced by **PROMYRMICIUM*

**Myrmicium* Heer, 1870: 78. Type-species: **Myrmicium boreale*, by monotypy.

Taxonomic history

[Junior homonym of **Myrmicium* Westwood, 1854: 396 (**Pseudosiricidae*).]

Genus *SCYPHODON*

Scyphodon Brues, 1925: 93. Type-species: *Scyphodon anomalum*, by original designation.

Taxonomic history

Scyphodon in Leptanillinae: Petersen, 1968: 591; Baroni Urbani, 1977a: 482; Dlussky & Fedoseeva, 1988: 79; Bolton, 1990b: 277; Hölldobler & Wilson, 1990: 12; Bolton, 1994: 70; Bolton, 1995b: 382.

Scyphodon incertae sedis in Formicidae: Wheeler, G.C. & Wheeler, J. 1985: 259.

Scyphodon incertae sedis in Aculeata: Ogata, Terayama & Masuko, 1995: 33 (excluded from Formicidae).

Genus references

Petersen, 1968: 591 (review of genus); Baroni Urbani, 1977a: 482 (review of genus); Ogata, Terayama & Masuko, 1995: 33 (review of genus).

Unavailable names and *nomina nuda* in Formicidae

ALLOFORMICINAE [unavailable name]

Alloformicinae Emery, 1925b: 9 [as "section" of Formicinae]. Section designated to include tribes Melophorini, Myrmelachistini and Plagiolepidini. Unavailable name; not based on genus rank taxon. Contained material referable to Formicinae: Bolton, 1994: 51.

ANCYLOGNATHUS [*nomen nudum*]

Ancylognathus Lund, 1831a: 121, 135. Type-species: *Ancylognathus lugubris*, *nomen nudum*. [*Ancylognathus* material referred to *Eciton*: Smith, F. 1855: 160.]

EUCAMPONOTINAE [unavailable name]

Eucamponotinae Forel, 1912f: 88 [as "section" of Camponotinae]. Section designated to include tribes Camponotini, Formicini, Gesomyrmecini, Oecophyllini and Prenolepidini. Unavailable name, not based on genus rank taxon. Contained material referable to Formicinae: Bolton, 1994: 51.

EUDOLICHODERINAE [unavailable name]

Eudolichoderinae Forel, 1917: 247 [as "section" of Dolichoderinae]. Section designated to include tribe Tapinomini. Unavailable name, not based on genus rank taxon. Contained material referable to Dolichoderinae: Bolton, 1994: 27.

EUDORYLINAE [unavailable name]

Eudorylinae Forel, 1917: 239 [as "section" of Dorylinae]. Section designated to include tribe Dorylini. Unavailable name, not based on genus rank taxon. Contained material referable to Dorylinae: Bolton, 1990c: 1358.

EUFORMICINAE [unavailable name]

Euformicinae Emery, 1925b: 37 [as "section" of Formicinae]. Section designated to include tribes Brachymyrmecini, Camponotini, Dimorphomyrmecini, Formicini, Gigantiopini, Lasiini, Oecophyllini and Santschiellini. Unavailable name, not based on genus rank taxon. Contained material referable to Formicinae: Bolton, 1994: 51.

EUMYRMICINAE [unavailable name]

Eumyrmicinae Emery, 1914a: 35 [as "section" of Myrmicinae]. Section designated to include all Myrmicinae except Metaponini and Pseudomyrmecini. Unavailable name, not based on genus rank taxon. Contained material referable to Myrmicinae: Bolton, 1994: 106.

EXEUPONERINAE [unavailable name]

Exeuponerinae Donisthorpe, 1943b: 438 [as "section" of Ponerinae]. Section designated to include only *Pseudoneoponera* (junior synonym of *Pachycondyla*). Unavailable name, not based on genus rank taxon. Contained material referable to Ponerini: Bolton, 1994: 164.

HETEROFORMICINAE [unavailable name]

Heteroformicinae Emery, 1925b: 35 [as "section" of Formicinae]. Section designated to include tribes Myrmecorhynchini and Myrmoteratini. Unavailable name; not based on genus rank taxon. Contained material referable to Formicinae: Bolton, 1994: 51.

HYPOPHÉIDOLE [*nomen nudum*]

Hypopheidole Ashmead, 1905b: 383, *nomen nudum*.

LEPTOXENUS [*nomen nudum*]

Leptoxenus Forel, 1917: 245 (attributed to Santschi), *nomen nudum*.

MESOCAMPONOTINAE [unavailable name]

Mesocamponotinae Forel, 1912f: 88 [as "section" of Camponotinae]. Section designated to include tribes Melophorini and Plagiolepidini. Unavailable name; not based on genus rank taxon. Contained material referable to Formicinae: Bolton, 1994: 51.

METADORYLINAE [unavailable name]

Metadorylinae Forel, 1917: 240 [as "section" of Dorylinae]. Section designated to include tribes Ecitonini and Leptanillini. Unavailable name; not based on genus rank taxon. Contained material referable to Ecitoninae and Leptanillinae: Bolton, 1990c: 1357; Bolton, 1994: 70.

MYCETOMYRMICINAE [unavailable name]

Mycetomyrmicinae Forel, 1917: 246 [as "section" of Myrmicinae]. Section designated to include tribes Attini and Proattini. Unavailable name; not based on genus rank taxon. Contained material referable to Myrmicinae: Bolton, 1994: 106.

MYRMEGIS [*nomen nudum*]

Myrmegis Rafinesque, 1815: 124, *nomen nudum*. [Brown, 1973b: 182, places *Myrmegis* as a junior synonym of *Atta*, because the entry in Rafinesque reads, "6. *Myrmegis* R. *Atta* Latr. "]

NEOATTINI [unavailable name]

Neoattini Kusnezov, 1956: 22; Kusnezov, 1964: 62 [as subdivision of tribe Attini]. Designated to include all attine genera except *Apterostigma*, *Mycocrepus*, *Myrmicocrypta*. Unavailable name; not based on genus rank taxon. Contained material referable to Attini.

PALEOATTINI [unavailable name]

Paleoattini Kusnezov, 1956: 22; Kusnezov, 1964: 62 (alternatively spelled Palaeoattini, p. 146) [as subdivision of tribe Attini]. Designated to include genera *Apterostigma*, *Mycocrepus*, *Myrmicocrypta*. Unavailable name; not based on genus rank taxon. Contained material referable to Attini.

PALEOPONERINAE [unavailable name]

Paleoponerinae Forel, 1917: 231 [as "section" of Ponerinae]. Section designated to include tribe Myrmecini.

Unavailable name; not based on genus rank taxon. Contained material referable to Myrmeciini: Bolton, 1994: 73.

PERGANDEA [*nomen nudum*]

Pergandea Ashmead, 1905b: 382, *nomen nudum*.

PROCAMPONOTINAE [unavailable name]

Procampotoninae Forel, 1912f: 88 [as "section" of Camponotinae]. Section designated to include tribe Myrmoteratini. Unavailable name; not based on genus rank taxon. Contained material referable to Myrmoteratini: Bolton, 1994: 51.

PRODOLICHODERINAE [unavailable name]

Prodolichoderinae Forel, 1917: 247 [as "section" of Dolichoderinae]. Section designated to include tribes Aneuretini, Dolichoderini and Leptomyrmicini. Unavailable name; not based on genus rank taxon. Contained material referable to Aneuretinae and Dolichoderinae: Bolton, 1994: 15, 27.

PRODORYLINAE [unavailable name]

Prodorylinae Emery, 1909c: 355 [as "group" of Ponerinae]; Emery, 1911b: 5 [as "sectio" of Ponerinae]. Group designated to include tribe Cerapachyini. Unavailable name; not based on genus rank taxon. Contained material referable to Cerapachyinae: Bolton, 1990a: 66.

PROMYRMICINAE [unavailable name]

Promyrmicinae Forel, 1911c: 446 [as "section" of Ponerinae]; Emery, 1921b: 19. Section designated to include tribe Metaponini. Unavailable name; not based on genus rank taxon. Contained material referable to Metaponini: Bolton, 1994: 106.

Promyrmicinae: Forel, 1917: 240 [incorrect expansion of the above unavailable name to include tribes Metaponini and Pseudomyrmini]. Unavailable name.

Promyrmicidae: Bernard, 1951: 1053 [incorrectly treated as family, including only tribe Pseudomyrmini]. Unavailable name.

PROPONERINAE [unavailable name]

Proponerinae Emery, 1909c: 355 [as "group" of Ponerinae]; Emery, 1911b: 16 [as "sectio" of Ponerinae]. Group designated to include tribes Amblyoponini and Proceratiini. Unavailable name; not based on genus rank taxon. Contained material referable to Ponerinae: Bolton, 1994: 164.

RHAGIOMYRMICINAE [unavailable name]

Rhagiomyrmicinae Forel, 1917: 246 [as "section" of Myrmicinae]. Section designated to include tribes Cataulacini, Cephalotini [=Cryptocerini] and Dacetini. Unavailable name; not based on genus rank taxon. Contained material referable to Myrmicinae: Bolton, 1994: 106.

SALTICOMORPHA [*nomen nudum*]

Salticomorpha Motschoulsky, 1855: 10, *nomen nudum*.

TARAXOPONERINAE [unavailable name]

Taraxoponerinae Forel, 1917: 231 [as "section" of Ponerinae]. Section designated to include tribes Ectatommini, Paraponerini, Platythyreini, Proceratiini and Thaumatomyrmecini. Unavailable name; not based on genus rank taxon. Contained material referable to Ponerinae: Bolton, 1994: 164.

TITUSIA [*nomen nudum*]

Titusia Ashmead, 1905b: 382, *nomen nudum*.

APPENDIX 1

Adjustments in genus rank taxonomy

Subfamily FORMICINAE

1. Reorganisation of *Anoplolepis sensu lato*.

From its inception (Emery, 1925b; Santschi, 1926a) to the present (Bolton, 1994, 1995b) *Anoplolepis* has been regarded as a single genus that contained four subgenera: *Anoplolepis*, *Zealleyella*, *Tapinolepis* and *Mesanoplolepis*. This was because all component species had 11-segmented antennae and lacked a distinctly defined metanotum on the dorsal alitrunk. The present analysis implies that these features have been evolved independently by two separate genera, *Anoplolepis* (with *Zealleyella* **syn. n.** as a junior synonym) and *Tapinolepis* **stat. n.** (with *Mesanoplolepis* **syn. n.** as a junior synonym). These are now assigned to different tribes.

Genus *Anoplolepis*

Formicine ants with the following characters in combination.

Worker

- i. Characters of tribe Lasiini present.
- ii. Mandible with 6 - 9 teeth.
- iii. Ocelli absent (a median ocellus may be present in largest workers of polymorphic species in the *A. custodiens* group).
- iv. Antenna with 11 segments; funiculus may be slightly incrassate apically but no club is developed.
- v. Metatibia with a distinct large apicoventral median spur; the spur flanked by a coarse seta on each side.
- vi. Metanotum not forming a distinct isolated sclerite on dorsal alitrunk (meso-metanotal suture absent).
- vii. Propodeum and petiole unarmed.
- viii. Anterior face of abdominal segment III (first gastral) without a sharply margined longitudinal concavity into which the petiole fits.
- ix. Dorsum of head behind clypeus with erect stout setae.
- x. Frontal carinae extend far posteriorly beyond apices of toruli.
- xi. Anterior arc of torulus is posterior to the posterior clypeal margin and does not touch or indent the margin.
- xii. Mandibles at full closure not mostly concealed by clypeus; masticatory margin of mandible usually longer than basal margin; clypeus long and strongly transversely convex.
- xiii. Eyes located behind midlength of side of head.
- xiv. Palp formula 6,4.

Included in *Anoplolepis* in this newly restricted sense are: *carinata*, *custodiens*, *fallax*, *gracilipes*, *nuptialis*, *opaciventris*, *rufescens*, *steingroeveri*, *tenella*, together with their subspecies, junior synonyms, etc. (bibliographical details in Bolton, 1995b).

Species of the *A. gracilipes* group are monomorphic, those of the *A. custodiens* group are polymorphic; repletes are not known.

Genus *Tapinolepis*

Formicine ants with the following characters in combination.

Worker

- i. Characters of tribe Plagiolepidini present.
- ii. Mandible with 5 teeth.
- iii. Ocelli present (all three distinct).
- iv. Antenna with 11 segments; no apical club developed.
- v. Metatibia apicoventrally with a divergent pair of large coarse setae, without a median spur between them.
- vi. Metanotum not forming a distinct isolated sclerite on dorsal alitrunk (meso-metanotal suture absent).
- vii. Propodeum and petiole unarmed.

- viii. Anterior face of abdominal segment III (first gastral) with a sharply margined longitudinal concavity into which the petiole fits when the gaster is aligned with the alitrunk.
- ix. Dorsum of head behind clypeus without erect setae.
- x. Frontal carinae scarcely exceed posterior apices of toruli.
- xi. Anterior arc of torulus touches and slightly indents the posterior clypeal margin.
- xii. Mandibles at full closure mostly concealed by clypeus; masticatory margin of mandible usually slightly shorter than basal margin; clypeus short and shallowly transversely convex.
- xiii. Eyes located slightly in front of, at, or somewhat behind midlength of side of head.
- xiv. Palp formula 6,4.

Genus *Tapinolepis* contains the following species together with their subspecies, junior synonyms, etc. as catalogued in Bolton (1995b) under *Anoplolepis*, and a more recently described species in Collingwood & Agosti (1996); all are **new combinations** in *Tapinolepis*: *bothae*, *candida*, *deceptor*, *decolor*, *litoralis*, *longitarsis*, *macrophthalma*, *macgregori*, *mediterranea*, *melanaria*, *pernix*, *simulans*, *trimenii*, *tumidula*.

Some species appear monomorphic but most are weakly dimorphic to weakly polymorphic, at least with notable size-variation among workers; repletes occur in several species but it is not known if the feature is universal.

Santschi's (1926a) characters that were proposed to separate *Tapinolepis* from *Mesanoplolepis*, position of eye and degree of inclination of petiole, are both gradient in the material available. His character concerning relative lengths of funicular segments have no relevance at genus rank but may be species-specific.

2. *Anacantholepis* a junior synonym of *Plagiolepis*.

The subgenus *Plagiolepis* (*Anacantholepis*) was nominated by Santschi (1914c: 36) for those *Plagiolepis* species in which the metanotum, when viewed in profile, was more prominent dorsally, and the propodeum more strongly convex than was "normal" in the genus. Both these features are marked only in the South African type-species, *P. (A.) decora*, being less well developed elsewhere and intermediate.

Lists of *P. (Anacantholepis)* species given by Wheeler, W.M. 1922a: 930 and Emery, 1925b: 22, both contain species that have subsequently been removed from *Plagiolepis*. It may be noted that the separate identities of *Plagiolepis* and *Lepisiota*, as they are currently constituted, are impossible to define. Whether the two together represent a single genus, or whether the mass can be resolved into more than two genera, remains to be analysed.

3. *Dolophra* a junior synonym of *Camponotus* (*Colobopsis*).

This name was summarily synonymised with *Camponotus sensu lato* (Bolton, 1995b: 27) as it was obviously a member of that genus. My thanks to Fabrizio Rigato (MCSN, Milan) and Dr Alexander Radchenko (IZ, Kiev), among others, for pointing out that the type-species of *Dolophra*, *D. politae*, belongs to a group of *Camponotus* (*Colobopsis*) that is widespread in the Oriental and Malesian regions.

Subfamily CERAPACHYINAE

4. *Yunodorylus* a junior synonym of *Cerapachys*.

The worker features used to define *Yunodorylus* included apomorphies and other morphological aspects that are characteristic of Cerapachyinae (small propodeal spiracle that is low on side and near midlength of sclerite, pygidium with marginal rows of short spines, no promesonotal suture, strong sting). The genus lacks all the worker characters that define Dorylinae (presence of strongly defined but fused promesonotal suture, large propodeal spiracle that is high on side and far forward, pygidium bidentate, sting reduced and non-functional). Despite this, and despite the fact that *Yunodorylus* keys to Cerapachyinae in Bolton (1994) the author (Xu, 2000b) stated that *Yunodorylus* "obviously belongs to the subfamily Dorylinae". His subsequent redefinition of the Dorylinae and key to its genera only served to split *Cerapachys* between two subfamilies and to completely confuse the identities of both of them.

The key to the mistake appears to lie with the author's conviction that dorylines have

only a single waist segment and are polymorphic while cerapachyines should have two and be monomorphic. The first part of the assumption is true; the second, concerning cerapachyines, is not. Bolton (1990a) had already described a morphocline in cerapachyines that led from "waist one-segmented" to "waist two-segmented", and figured a species (fig. 18) that would fall into "*Yunodorylus*".

In summary, *Yunodorylus* fits the diagnosis of Cerapachyinae but not that of Dorylinae and there is nothing about *Yunodorylus* that obviously keeps it separate from *Cerapachys*, as that genus is presently understood. The author's statement that *Yunodorylus sexspinus* lacks propodeal lobes is contradicted by two species from Borneo (BMNH) that are definitely closely related to *sexspinus*; one of them has small propodeal lobes, the other has them strongly developed.

C. sexspinus **comb. n.**, type- and only described species of *Yunodorylus*, is hereby transferred to *Cerapachys*.

Subfamily MYRMICINAE

5. *Apomyrmex* a junior synonym of *Tetramorium*.

The name *Apomyrmex* should never have been published. From the description and figures its type-species is obviously a *Tetramorium* of the *bicarinatum* group, close to or synonymous with *T. pacificum*. The author's motives for describing *Apomyrmex* remain a mystery but are probably best ascribed to deficient knowledge of ant taxonomy. For now, the combination of the type-species of *Apomyrmex* is *Tetramorium manobo* **comb. n.**, until its status can be properly assessed.

6. Revived status of *Gauromyrmex*.

For several years *Gauromyrmex* has been regarded as a junior synonym of *Vollenhovia* (Stenammini), and was catalogued as such in Bolton (1995b: 422). The synonymy of these two genus-group taxa is not correct. *Gauromyrmex* is not a stenammine, but rather forms a small compact genus within the Formicoxenini, apparently related to *Nesomyrmex*. The only two species described in *Gauromyrmex* are therefore returned to it: *G. acanthinus* **comb. rev.** and *G. bengakalisi* **comb. rev.** (BMNH collection also contains 5 - 6 undescribed species).

Genus *Gauromyrmex*

Myrmicine ants of the tribe Formicoxenini, with the following characters in combination (all known species are arboreal and are size-variable to weakly polymorphic).

Worker

- i. Mandible short, with 6 teeth.
- ii. Palp formula 2,2; stipes of maxilla without a transverse crest.
- iii. Median portion of clypeus extends anteriorly as a short truncated lobe that overlaps and is closely applied to the mandibular dorsum; lobe conceals basal 1 - 2 teeth and its anterior margin is transverse to shallowly evenly concave.
- iv. Flattened median portion of clypeus longitudinally angulate at each side, at least in largest workers.
- v. Isolated median seta present or absent on anterior clypeal margin; median clypeal carina usually absent.
- vi. Median portion of clypeus posteriorly broadly inserted between frontal lobes.
- vii. Frontal lobes narrow but toruli concealed in full-face view.
- viii. Frontal carinae and antennal scrobes absent.
- ix. Antenna with 11 segments, apical 3 forming a club.
- x. Head dorsoventrally flattened; in profile broadest posteriorly, narrowing towards mandibles.
- xi. Middle and hind femora incrassate.
- xii. Metanotal groove impressed.
- xiii. Propodeal spiracle high on side and at about midlength of sclerite.
- xiv. Petiole sessile to subsessile, with a large anteroventral process; dorsum of petiole bituberculate to bidentate.
- xv. Base of first gastral tergite with a prominent shoulder.

xvi. First gastral tergite strongly overlapping sternite ventrally.

Queen (gyne) ergatoid and lacking ocelli, with a complete and apparently flexible promesonotal suture (known from only one species); male unknown.

7. Reorganisation of *Leptothorax sensu lato*.

Genus *Leptothorax* in its current broad sense (e.g. Bolton (1994, 1995b), MacKay (2000)) can be divided into three genera, *Leptothorax*, *Temnothorax* and *Nesomyrmex*, as follows.

Genus *Leptothorax*

Myrmicine ants of the formicoxenine tribe group and Formicoxenini, of *Leptothorax* genus group within the tribe and with the following characters in combination.

Worker and gyne

i. Median portion of clypeus does not form an anteriorly projecting lobe that fits tightly over the mandibular dorsum and does not distinctly overlap basal portion of mandible.

ii. Isolated median seta absent from anterior clypeal margin.

iii. Median clypeal carina absent.

iv. Apparent anterior clypeal margin elevated slightly away from dorsal surface of mandible (profile view).

v. Transverse crest present on stipes of maxilla.

vi. Antenna with 11 segments.

vii. Frontal carinae and antennal scrobes absent.

viii. Eyes without projecting hairs.

Male

ix. Mandible reduced, blunt and edentate.

x. Antenna with 12 segments; scape short.

xi. Antennal funiculus filiform.

Other genera within the genus group share characters i, iii, iv, v and xi (in alates); the remaining characters are shared by some but not all. *Cardiocondyla* has an isolated median clypeal seta, has the apparent anterior clypeal margin very strongly elevated away from the dorsal surface of the mandible; male is dimorphic, with 1 - 5-dentate mandible and with 8 - 13 antennomeres (incrassate in ergatoids). *Harpagoxenus* has edentate mandible with a sharp cutting edge, has frontal carinae and antennal scrobes present; its males are remarkably similar to those of *Leptothorax*. *Formicoxenus* is very weak, differing from *Leptothorax* only by its possession of hairs on the eyes and a more swollen median clypeus; some species have PF reduced from 5,3 to 4,3.

Leptothorax, in this newly restricted form, retains the genus-group names *Doronomyrmex* and *Mychothorax* as junior synonyms and contains the following species together with their subspecies, junior synonyms, etc. (bibliographical details in Bolton (1995b)).

Holarctic species: *L. acervorum*, *buschingeri*, *crassipilis*, *faberi*, *goesswaldi* **comb. rev.**, *gredleri*, *kutteri* **comb. rev.**, *muscorum*, *oceanicus*, *pacis* **comb. n.**, *paraxenus*, *pocahontas* **comb. n.**, *retractus*, *scamni*, *sphagnicola*, *wilsoni*.

Genus *Temnothorax*

Myrmicine ants of the formicoxenine tribe group and Formicoxenini, of *Temnothorax* genus group within the tribe and with the following characters in combination.

Worker and gyne

i. Median portion of clypeus does not form an anteriorly projecting lobe that fits tightly over the mandibular dorsum and does not distinctly overlap basal portion of mandible.

ii. Isolated median seta absent from anterior clypeal margin.

iii. Median clypeal carina present.

iv. Apparent anterior clypeal margin usually elevated slightly away from dorsal surface of mandible (profile view).

v. Transverse crest absent from stipes of maxilla.

vi. Antenna with 11 or 12 segments.

vii. Frontal carinae and antennal scrobes absent.

Male

viii. Mandible with 3 - 5 teeth.

ix. Antenna with 12 or 13 segments; scape relatively long.

x. Antennal funiculus terminating in a club of 3 or 4 segments.

Other genera within the genus group share characters i, ii, iv, v, vi, viii (2 - 6 teeth) and x. The names included in the synonymy of *Temnothorax*, previously variously regarded as separate genera, subgenera of *Leptothorax* or subgenera of each other (listed below), cannot at present be separated from one another or from *Temnothorax* in any meaningful or consistent way. As most recently applied (e.g. MacKay, 2000) the "subgenera" fail to function on a whole-world basis. They are relegated to the synonymy of *Temnothorax*, the oldest available name for this large group of nominal forms.

Temnothorax in this newly diagnosed form thus acquires the genus-group names *Antillaemyrmex*, *Croesomyrmex*, *Dichothorax*, *Icothorax*, *Macromischa*, *Myrafant* and *Myrmammophilus* as junior **new synonyms** and therefore contains most of the species that were formerly included in *Leptothorax sensu lato*. All the following species together with their subspecies, junior synonyms, etc. (bibliographical details in Bolton (1995b) and subsequent papers dealing with *Leptothorax sensu lato* (see references under *Leptothorax*) are **new combinations** in *Temnothorax* except where otherwise stated.

Oriental species: *T. confucii*, *desioi*, *fultonii*, *inermis*, *nordmeyeri*, *rothneyi*, *schurri*, *taivanensis*, *wroughtonii*.

Afrotropical species: *T. cenatus*, *megalops*.

Palaeartic species: *T. affinis*, *albipennis*, *algericus*, *alinae*, *alpinus*, *anacanthus*, *anira*, *angustulus*, *annibalis*, *anodonta*, *anodontoides*, *antera*, *antigoni*, *arcanus*, *archangelskiji*, *arenarius*, *argentipes*, *arimensis*, *arpini*, *atlantis*, *atomus*, *aturesianus*, *aveli*, *baeticus*, *barryi*, *basara*, *berlandi*, *bikara*, *blascoi*, *brauneri*, *bucheti*, *bugnioni*, *bulgaricus*, *cabreræ*, *caesari*, *cagnianti*, *canescens*, *caucasicus*, *clypeatus*, *congruus*, *convexus*, *cornibrevis*, *corticalis*, *massispinus*, *crepuscularis*, *cristinae*, *curtulus*, *delaparti* **comb. rev.**, *desertorum* **comb. rev.**, *dessyi*, *discoloratus*, *ditifet*, *eburneipes*, *exilis*, *finzii*, *flavicornis*, *flavispinus*, *foreli*, *formosus*, *fuentei*, *fumosus*, *gaetulus*, *galeatus*, *gracilicornis*, *graecus*, *gredosi*, *grouvellei*, *hadrumetensis*, *haira*, *hesperius*, *ibericus*, *indra*, *interruptus*, *iranicus*, *italicus*, *jailensis*, *janushevi*, *kaszabi*, *kemali*, *kinomurai*, *kirghizicus*, *kiudiria*, *knipovitshi*, *korbi*, *koreanus*, *kraussei*, *kubira*, *kurilensis*, *laciniiatus*, *laestrygon*, *lagrecai*, *laurae*, *leoni*, *lereddei*, *leviceps*, *lichtensteini*, *longipilosus*, *luteus*, *makora*, *marocana*, *massiliensis*, *mauritanicus*, *maurus*, *melas*, *melleus*, *melnikovi*, *mimeuri*, *minozzii*, *mirabilis*, *miserabilis*, *mongolicus*, *monjauzei*, *nadigi*, *naeviventris*, *nassanowi*, *neminan*, *niger*, *nigriceps*, *nigritus*, *normandi*, *nylanderi*, *obscurior*, *oraniensis*, *oxianus*, *pallidipes*, *pallidus*, *pamiricus*, *pan*, *pardoi*, *parvulus*, *pelagosanus*, *personatus*, *peyerimhoffi*, *platycephalus*, *productus*, *rabaudi*, *racovitzae*, *recedens* **comb. rev.**, *reduncus*, *risii*, *rottenbergii*, *santra*, *santschii*, *sardous*, *satunini*, *saudiae*, *schaufussi*, *semenovi*, *semiruber*, *serviculus*, *sevanensis*, *shelkovnikovi*, *simesno*, *singularis*, *solerii*, *sordidulus*, *specularis*, *spiniosior*, *spinosus*, *steinbergi*, *subcingulatus*, *suberis*, *susamyri*, *tamaræ*, *tauricus*, *tebessae*, *tenuispinus*, *tesquorum*, *theryi*, *tianschanicus*, *tricolor* **comb. rev.**, *tristis*, *tuberum*, *turcicus*, *turritellus*, *tyndalei*, *unifasciatus*, *universitatis*, *usunkul*, *volgensis*, *wernerii*, *wollastoni*.

Baltic Amber species *incertae sedis*: *T. *glæsarius*, **gracilis*, **hystriculus*, **longaevus*, **placivus*.

New World species: *T. abeli*, *adustus*, *alayoi*, *alayorum*, *albispinus*, *allardycei*, *ambiguus*, *andersoni*, *andrei*, *androsanus*, *annexus*, *augusti*, *aztecus*, *banao*, *barbouri*, *barroi*, *bermudezi*, *bestelmeyeri*, *bicolor*, *bradleyi*, *brevispinosus*, *bristoli*, *bruneri*, *carinatus*, *chandleri*, *ciferrii*, *cokendolpheri*, *coleenae*, *creightoni*, *creolus*, *curvispinosus*, *cuyagueteje*, *darlingtoni*, *davisi*, *dissimilis*, *duloticus*, *emmae*, *flavidulus*, *fragosus*, *furunculus*, *fuscatus*, *gallae*, *gibbifer*, *goniops*, *gundlachi*, *hispaniolae*, *hispidus*, *huehuetenangoi*, *imias*, *iris*, *isabellae*, *ixili*, *josephi*, *laetus*, *leucacanthus*, *liebi*, *lindae*, *longispinosus*, *manni*, *mariposa*, *maryanae*, *melinus*, *mexicanus*, *minutissimus*, *mortoni*, *myersi*, *neomexicanus*, *nevadensis*, *nigricans*, *nipensis*, *nitens*, *obliquicanthus*, *obturator*,

*ocarinae, ocellatus, oxynodis, pastinifer, peninsularis, pergandei, platycnemis, poeyi, polita, porphyritis, *praeceolus, pulchellus, punctaticeps, punctatissimus, punctithorax, punicans, purpuratus, rugatulus, rugithorax, rugosus, rugulosus, sallei, salvini, audiae, schaumii, schmittii, schwarzi, senectutis, silvestrii, skwarrae, smithi, splendens, squamifer, stenotyle, stollii, striatulus, subditivus, tenuisculptus, terricola, terrigena, texanus, torrei, totonicapani, tricarinatus, tuscaloosae, versicolor, villarensis, violaceus, wheeleriwhitfordi.*

Genus *Nesomyrmex*

Myrmicine ants of the formicoxenine tribe group and Formicoxenini, of *Nesomyrmex* genus group within the tribe and with the following characters in combination.

Worker and gyne

- i. Median portion of clypeus anteriorly forms a prominent lobe that overlaps and is closely applied to the mandibular dorsum.
- ii. Isolated median seta absent from anterior clypeal margin.
- iii. Anterior clypeus overlaps and is closely adherent to dorsal surface of mandible (profile view).
- iv. Transverse crest absent from stipes of maxilla.
- v. Antenna with 11 or 12 segments.
- vi. With head in full-face view lateral margins in front of eyes convex and distinctly incurved anteriorly.
- vii. Frontal carinae and antennal scrobes absent.

Male

- viii. Mandible with 5 teeth.
- ix. Antenna with 12 or 13 segments; scape relatively long.
- x. Antennal funiculus filiform.

Other genera within the genus group share characters i, ii, iii, iv, vii (3 - 4 teeth), viii and ix.

Nesomyrmex in this newly diagnosed form retains the genus-group names *Caulomyrma*, *Goniothorax*, *Limnomyrmex* and *Meia* as junior synonyms and acquires *Ireneopone* (see Appendix 1.8, below) and *Tetramyrma* as **new synonyms**. All the species names that follow, together with their subspecies, junior synonyms, etc. as catalogued in Bolton (1995b) or in subsequent papers dealing with *Leptothorax sensu lato*, are **new combinations** in *Nesomyrmex* except where otherwise stated.

Afrotropical-Saharan species: *N. angulatus, braunsi, catalaucoides, denticulatus, evelynae, grisoni, humerosus, innocens, simoni, stramineus*.

Malagasy species: *gibber, madecassus, retusispinosus, sikorai*.

New World species: *N. anduzei, argentinus, asper, brasiliensis, brimodus, *caritatis, clavipilis comb. rev., costatus, *dominicanus, echinatinodis, itinerans, mirassolis, pittieri, pleuriticus, pulcher, rutilans, schwebeli, sculptiventris, spininodis, tonsuratus, tristani, vicinus, wilda*.

Taxon excluded from the above: *jacobsoni*, which from the original description is probably a *Vombisidris* species (holotype is missing; see Bolton, 1995b: 240). Combination of this is provisionally *Vombisidris jacobsoni* (Forel) **comb. n.**

8. *Ireneopone* a junior synonym of *Nesomyrmex*.

The Mauritian species that made up the monotypic genus *Ireneopone*, *I. gibber*, is a *Nesomyrmex* in the sense discussed above (Appendix 1.7), in which the worker mesonotum is strangely swollen and bulging (Bolton, 1994: 127, fig. 279). This character is now seen to be an autapomorphy of this one species as *gibber* otherwise belongs to a group of Malagasy *Nesomyrmex* in which the anterior margin of the lobe of the clypeus is concave, the propodeum is unarmed and sculpture is reduced. Other Malagasy *Nesomyrmex* are relatively more strongly sculptured, have propodeal teeth or spines and have the lobe margin entire or with a small median notch. *Nesomyrmex gibber* is hence **comb. n.** for this

taxon.

9. *Neoblepharidatta* a junior synonym of *Oligomyrmex*.

Philip S. Ward (UC, Davis) has examined the holotype of *N. nayana* (sole species of *Neoblepharidatta*) and confirms that it is a species of *Oligomyrmex*; it therefore becomes *O. nayana* **comb. n.** The original description (Sheela & Narendran, 1997) refers to the holotype as a dealate female. It is in fact a major worker and belongs to a small group of *Oligomyrmex* species, also found in the Afrotropical region, in which the heads of the majors are dish-shaped dorsally and have antennal scrobes present laterally.

10. *Willowsiella* a junior synonym of *Stereomyrmex*.

It is suspected that the only reason this association has not been made previously is that *Stereomyrmex* has always been referred to as a Sri Lankan endemic whilst *Willowsiella* has been treated as an isolated Solomon Islands, and more recently Australian, genus; the two have never been considered side by side. *Stereomyrmex* (= *Willowsiella*) is defined as follows.

Genus *Stereomyrmex*

Myrmicine ants currently included in the Formicoxenini, peripheral to the *Romblonella* genus group and with the following characters in combination.

Worker

- i. Mandible short, with 5 teeth (perhaps 4 in *dispar*);
- ii. Palp formula 5,3; stipes of maxilla without a transverse crest.
- iii. Isolated median seta usually present on anterior clypeal margin.
- iv. Clypeus without a median longitudinal carina.
- v. Median portion of clypeus broadly inserted between frontal lobes.
- vi. Frontal lobes conceal toruli in full-face view.
- vii. Antenna 11-segmented, with a 3-segmented apical club.
- viii. Frontal carinae and antennal scrobes absent.
- ix. Alitrunk short and compact, without dorsal sutures or impressions.
- x. Propodeal spiracle low on side, abutting dorsal apex of metapleural gland bulla; well in front of margin of declivity.
- xi. Propodeal spines broad-based in profile.
- xii. Petiole subsessile, with a triangular small tooth or prominence close to the spiracle.
- xiii. First gastral tegite in dorsal view with relatively narrowly rounded, prominent anterolateral corners; anterior margin between them conspicuously concave.
- xiv. Erect pilosity absent from dorsal surfaces of head behind clypeus, alitrunk, waist segments and first gastral tergite.
- xv. Sting stout and strong.

The two species formerly in *Willowsiella* are transferred to *Stereomyrmex*: *S. dispar* **comb. n.** and *S. anderseni* **comb. n.** (bibliographical details in Bolton, 1995b).

The queen of *S. horni* is known and is ergatoid. It is much larger than the worker and retains ocelli, but has no trace of flight sclerites. The dorsal alitrunk has a weak and apparently fused promesonotal suture.

11. **Sinaphaenogaster* a junior synonym of *Aphaenogaster*.

The fossil taxon *Aphaenogaster* (**Sinaphaenogaster*) was differentiated from *Aphaenogaster* only by the presence of an adventitious vein-stub on the outer abscissa of M in the forewing, interpreted by its author as a vestige of 2m-cu. Bolton (1982: 340) pointed out that in both *Aphaenogaster* and *Messor* venation was remarkably unstable and stated that "adventitious vein-stubs frequently arise at random from all the main veins, and from the cross-veins too on occasion". The fossil subgenus is based on a character considered inadequate at this rank, and frankly dubious even for the diagnosis of a species-rank taxon; the name **Sinaphaenogaster* is best discarded.

APPENDIX 2

Synopsis of antennomere count, palp formula, total dental count and spur formula through the extant genera of Formicidae.

Antennomere Count (AC): the total number of antennal segments.

A count given as 8-10 indicates that species with 8, 9 and 10 antennal segments have all been recorded within the genus.

A count given as 8,10 indicates that no species with 9 antennal segments have been recorded within the genus.

A number in parentheses following the count indicates the number of segments that constitute a club. Hence 12(3) = 12 antennomeres of which the apical three form a club. A suffixed (0) = antenna filiform, and (gi) = antenna gradually incrassate towards apex but without a distinctly differentiated club.

Palp Formula (PF): the number of segments in the maxillary palp and labial palp, always given in that order. For example PF 6,4 = maxillary palp with 6 segments, labial palp with four.

A count of PF 6-5,4 indicates varying fusion of palpomeres (maxillary in this case) to give a count of 6 in some, 5 in others, within a species.

Total Dental Count (TDC): the total number of teeth and denticles on the masticatory (apical) margin of the mandible. In Dolichoderinae an entry "(+)" following the TDC indicates the presence of uncounted denticles or crenulations on the basal margin; except in Dolichoderinae this is uncommon. Elsewhere a number in parentheses following TDC indicates the number of teeth/denticles on the basal margin of the mandible; e.g. TDC 6(1) = six teeth on the masticatory margin and one on the basal. No entry in parentheses means that no basal margin armament occurs.

TDC 0 = fully edentate or lobate mandible where even an apical tooth or point is lacking.

TDC 1 = a falcate mandible or one where only the apical tooth or point is present.

Spur Formula (SF): the number and form of the apical spur or spurs on the mesotibia and metatibia, always in that order. For example SF 1,2 = mesotibia with one spur, metatibia with two (protibia is not recorded as there is always a specialised spur present, the strigil).

Form of each spur is indicated by a letter following the number: s = simple, b = barbulate, p = pectinate. Thus an entry such as SF 1s,2(1s,1p) means that the mesotibia has one simple spur and the metatibia has 2 spurs, the first (anterior) of which is simple, the second (posterior, main spur) pectinate.

"Barbulate" is a broad grade, basically any spur that is not simple but is not broadly pectinate.

SF 0 means either that a spur is entirely absent or is so reduced and hair-like that it can not easily be distinguished from any apicotibial setae that may be present.

When two spurs are present on the meso- and metatibia the anterior is smaller than the posterior, generally much smaller, and the spurs on the mesotibia are usually smaller than the corresponding metatibial spurs.

In the table all castes of both sexes are understood to be monomorphic and unmodified except where otherwise stated. The table is based mainly on the BMNH collection, with additional data from other large collections (ANIC, MCZ) and from the literature. Where any data is entirely literature-based it is stated as such after the appropriate sex.

The list is not exhaustive in that it does not include every caste of both sexes of every species of all genera. In a number of genera one sex remains unknown and in most genera the data for female castes is more abundant than for males.

ANEURETINAE**Aneuretini**

Aneuretus WORKER (dimorphic)/QUEEN: AC 12(gi). PF 3,4. TDC 9-11. SF 1s,1s.
MALE: AC 13(0). PF 3,4. TDC 7. SF 1s,1s.

DOLICHODERINAE**Dolichoderini**

- Amyrmex* WORKER/QUEEN: unknown. MALE: AC 13. PF 0,0 (from literature).
- Anillidris* WORKER/QUEEN: AC 12. PF 2,3 worker, 3,4 queen. TDC 7-8. SF ?,1p (from literature). MALE: AC 13. PF 3,4. TDC 7-8 (from literature).
- Anonychomyrma* WORKER (at least one species dimorphic)/QUEEN: AC 12(gi). PF 6,4. TDC 7-12(+). SF 1p,1p. MALE: AC 13. PF 6,4. TDC 5-10(+). SF 1s,1p; 0,1b-p.
- Axinidris* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 7-12(+). SF 1s,1p. MALE: AC 13. PF 6,4. TDC 25-27. SF 1s,1p.
- Azteca* WORKER (polymorphic)/QUEEN: AC 12(gi). PF 6,4; 5,3; 4,3; 4,2. TDC 7-9(some +). SF 1s,1p. MALE: AC 13. PF 6,4; 5,3. TDC 1-7. SF 1s,1p.
- Bothriomyrmex* WORKER/QUEEN: AC 12(gi). PF 4,3; 2,3; 2,2. TDC 5-9. SF 1s,1p. MALE: AC 13. PF 4,3; 2,2. TDC 2-3. SF 1s,1p.
- Doleromyrma* WORKER/QUEEN: AC 12. PF 6,4. TDC 5-9(+). SF 1s,1p (from literature). MALE: AC 13. PF 6,4. TDC 5-7 (from literature).
- Dolichoderus* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 9-30(+). SF 1s-p,1s-p. MALE: AC 13. PF 6,4. TDC 20-35(+). SF 1s-p,1s-p.
- Dorymyrmex* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6-9(+). SF 1s-p,1p. MALE: AC 13. PF 6,4. TDC 4-5. SF 1s,1p.
- Ecphorella* WORKER (queen unknown): AC 12. PF ?. TDC 7. SF ?,1p (from literature). MALE: unknown.
- Forelius* WORKER (some size-variable)/QUEEN: AC 12(gi). PF 6,4. TDC 5-8. SF 1s,1s-p. MALE: AC 13. PF 5,3. TDC 1-5. SF 1s,1p.
- Froggattella* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6-9(+). SF 1s,1p. MALE: AC 13. PF 6,4. TDC 0 (from literature).
- Iridomyrmex* WORKER/QUEEN: AC 12(0-gi). PF 6,4. TDC 8-15(+). SF 1s-p,1p. MALE: AC 13. PF 6,4. TDC 1-25(+). SF 1p,1p.
- Leptomyrmex* WORKER/QUEEN (many ergatoid): AC 12(0). PF 6,4. TDC 16-25(+). SF 1s,1s-p. MALE: AC 13. PF 6,4. TDC 0-25. SF 1s,1s-p.
- Linepithema* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 10-20(+). SF 1s-p,1s-p. MALE: AC 13. PF 6,4. TDC 6-15. SF 1p,1p.
- Liometopum* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 7-14(+). SF 1s-p,1p. MALE: AC 13. PF 6,4. TDC 7-11. SF 1p,1p.
- Loweriella* WORKER (queen unknown): AC 12(gi). PF 6,4. TDC 9-12. SF 1s,1s. MALE: unknown.
- Ochetellus* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 7-12(+). SF 1s-p,1p. MALE: AC 13. PF 6,4. TDC 1-5. SF 0,1p.
- Papyrius* WORKER/QUEEN: AC 12(gi). PF 5,3. TDC 12-17. SF 1p,1p. MALE: AC 13. PF 5,3. TDC 7-8. SF 1p,1p.
- Philidris* WORKER (many polymorphic)/QUEEN: AC 12(gi). PF 6,4. TDC 9-12(+). SF 1s,1p. MALE: AC 13. PF 6,4. TDC 10-13. SF 1s,1p.
- Tapinoma* WORKER/QUEEN: AC 8, 11-12(0-gi). PF 6,4. TDC 5-20(+). SF 1s-p,1s-p. MALE: AC 12-13. PF 6,4. TDC 8-18(+) SF 1s,1s-p.
- Technomyrmex* WORKER (at least one species polymorphic)/QUEEN (at least one species ergatoid): AC 12(gi). PF 6,4; 5,3; 4,3. TDC 9-25(+). SF 1s,1p. MALE (at least one species ergatoid): AC 13. PF 6,4; 5,4. TDC 16-25. SF 1s,1p.
- Turneria* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6-10(+). SF 1s,1p. MALE: AC 13. PF 6,4. TDC 0 (from literature).

FORMICINAE**Lasiini**

- Acanthomyops* WORKER/QUEEN: AC 12(gi). PF 3,4. TDC 6-10 in worker, 4-7(0-1) in queen. SF 1s,1s; 0,0. MALE: AC 13(0). PF 3,4. TDC 2-3. SF 1s,1s.
- Acropyga* WORKER/QUEEN: AC 7-11(0-gi). PF 5,3; 4,3; 2,3; 1,3. TDC 3-7. SF 0,0. MALE: AC 10-12(0). PF 5,3; 4,3; 2,3. TDC 1-6. SF 0,0.

- Anoplolepis* WORKER (several polymorphic)/QUEEN: AC 11(0-gi). PF 6,4. TDC 6-9(0-2). SF 1s,1s. MALE: AC 12(0-gi). PF 6,4. TDC 4-8(0-2). SF 1s,1s.
- Cladomyrma* WORKER (dimorphic)/QUEEN: AC 8(gi). PF 6,4; 5,3. TDC 4-9. SF 0,0. MALE: AC 13(0). PF 6,4; 5,3. TDC 0-1. SF 0,0.
- Lasiophanes* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6-8. SF 1s,1s. MALE: AC 13(gi). PF 6,4. TDC 3-5. SF 1s,1s.
- Lasius* WORKER (a few species weakly polymorphic)/QUEEN: AC 12(0-gi). PF 6,4. TDC 6-10(0-1). SF 1s,1s; 0,0. MALE: AC 13(0). PF 6,4. TDC 1-8(0-1). SF 1s,1s; 0,0.
- Myrmecocystus* WORKER (some polymorphic)/QUEEN: AC 12(0). PF 6,4. TDC 6-11. SF 1s,1s. MALE: AC 13(0). PF 5,4. TDC 1-3. SF 1s,1s.
- Prolasius* WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 5-6. SF 1s,1s. MALE: AC 13. PF ?. TDC 2. SF ? (from literature).
- Stigmacros* WORKER/QUEEN: AC 11(gi). PF 6,4. TDC 4-5. SF 1s,1s. MALE: AC 12. PF ?. TDC 4. SF ? (from literature).
- Teratomyrmex* WORKER (queen unknown): AC 12(gi). PF 6,4 [by dissection; McAreavey (1957) gives PF 4,2]. TDC 6. SF 1s,1s. MALE: unknown.

Plagirolepidini

- Agraulomyrmex* WORKER/QUEEN: AC 10(gi). PF 6,4; 5,3. TDC 4-6. SF ? (from literature). MALE: unknown.
- Aphomyrmex* WORKER (polymorphic)/QUEEN: AC 9(gi) in worker, 10(gi) in queen. PF 5,3. TDC 5-6. SF 0,0. MALE: AC 9-10(gi weak). PF 6,4; 5,3. TDC 2-4. SF 0,0.
- Brachymyrmex* WORKER/QUEEN: AC 9(0-gi weak). PF 6,4. TDC 5. SF 0,0. MALE: AC 10(0). PF 6,4. TDC 1. SF 0,0.
- Bregmatomyrma* QUEEN (suspected inquiline, worker unknown): AC 12(0). PF 3,3. TDC 5. SF 0,0. MALE: unknown.
- Euprenolepis* WORKER (at least one species polymorphic)/QUEEN: AC 12(0). PF 3,4. TDC 5-6. SF 1s,1s. MALE: AC 13 (from literature).
- Lepisiota* WORKER (a few species size-variable to weakly polymorphic)/QUEEN: AC 11(0). PF 6,4. TDC 5-6. SF 0,0. MALE: AC 12(0). PF 6,4. TDC 3-4. SF 0,0.
- Myrmelachista* WORKER/QUEEN: AC 9-10(3-4). PF 6,4. TDC 5. SF 0,0. MALE: AC 10-11(4). PF 6,4. TDC 0-4. SF 0,0.
- Paratrechina* WORKER/QUEEN: AC 12(0). PF 6,4. TDC 5-6. SF 1s,1s; 0,1s; 0,0. MALE: AC 13(0). PF 6,4; 5,4. TDC 1-4. SF 1s,1s.
- Petalomyrmex* WORKER/QUEEN: AC 9(gi) in worker, 9-10(gi) in queen. PF 3,3. TDC 6. SF 0,0. MALE: AC 10(gi weak). PF 4,3. TDC 4-5. SF 0,0.
- Plagirolepis* WORKER (at least one species polymorphic)/QUEEN: AC 11(0-gi weak). PF 6,4. TDC 5-6. SF 0,0. MALE: AC 12(0). PF 6,4. TDC 1-4. SF 1s,1s.
- Prenolepis* WORKER/QUEEN: AC 12(0-gi weak). PF 6,4. TDC 6-7. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.
- Pseudaphomyrmex* QUEEN (worker unknown): AC 11 (gi). PF 6,4. TDC 6. SF ? (from literature). MALE: unknown.
- Pseudolasius* WORKER (mostly dimorphic or polymorphic)/QUEEN: AC 11-12(0-gi weak). PF 5,3; 4,3; 3,3; 2,3; 2,2. TDC 4-7 (9 in one queen). SF 1s,1s; 0,0. MALE: AC 13(0). PF 3,3; 2,3. TDC 1-5. SF 1s,1s; 0,0.
- Tapinolepis* WORKER (size-variable to weakly polymorphic)/QUEEN: AC 11(0). PF 6,4. TDC 5. SF 0,0. MALE: AC 12(0). PF 6,4. TDC 1. SF 1s,1s.

Myrmoteratini

- Myrmoteras* WORKER/QUEEN: AC 12(0-gi weak). PF 6,4; 5,4; 5,3; 4,3; 4,2; 3,3. TDC 8-16. SF 1s,1s; 0,0. MALE: AC 13(0). PF 6,4; 3,3. TDC 0. SF 1s,1s.

Gesomyrmecini

Gesomyrmex WORKER (polymorphic)/QUEEN: AC 8(gi) in worker, 10(gi) in queen. PF 6,4. TDC 6-10. SF 1s,1s; 0,0. MALE: AC 11(0). PF 6,4. TDC 1. SF ? (from literature).

Santschiella WORKER (queen unknown): AC 12(gi). PF 6,4. TDC 7-8. SF ?. MALE: unknown.

Myrmecorhynchini

Myrmecorhynchus WORKER (polymorphic)/QUEEN: AC 12(gi). PF 6,4. TDC 6-13. SF 1s,1s. MALE: AC 13(gi). PF ?. TDC 1. SF ? (from literature).

Notoncus WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6-7. SF 1s,1s. MALE: no data.

Pseudonotoncus WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 6. SF 1s,1s. MALE: unknown.

Oecophyllini

Oecophylla WORKER (trimorphic)/QUEEN: AC 12(0-gi weak). PF 5,4. TDC 9-16. SF 0,0. MALE: AC 13(0). PF 5,4. TDC 0-10. SF 0,0.

Gigantiopini

Gigantiops WORKER/QUEEN: AC 12(0). PF 6,4. TDC 10. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

Camponotini

Calomyrmex WORKER/QUEEN: AC 12(0). PF 6,4. TDC 5. SF 1s-p,1s-p. MALE: AC 13(0). PF 6,4. TDC 1. SF 1p,1p.

Camponotus WORKER (polymorphic)/QUEEN: AC 12(0-gi). PF 6,4; 5,4. TDC 4-9. SF 1s-b,1s-p; 0,0. MALE: AC 13(0). PF 6,4. TDC 1-2. SF 1s-p,1s-p; 0,1p; 0,0.

Echinopla WORKER/QUEEN: AC 12(0-gi). PF 6,4. TDC 5. SF 1s-p,1s-p. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

Forelophilus WORKER (polymorphic)/QUEEN: AC 12(gi). PF 6,4. TDC 5. SF 1s,1s. MALE: unknown.

Opisthopsis WORKER (some size-variable)/QUEEN: AC 12(0). PF 6,4. TDC 5-6. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

Overbeckia WORKER/QUEEN: AC 12(gi). PF 6,4. TDC 5. SF ? (from literature). MALE: AC 13(0). PF 6,4. TDC 1. SF ? (from literature).

Phasmomyrmex WORKER/QUEEN: AC 12(0). PF 6,4. TDC 5. SF 1s-p,1s-p. MALE: AC 13(0). PF 6,4. TDC 1. SF 0,0.

Polyrhachis WORKER/QUEEN: AC 12(0-gi). PF 6,4. TDC 5-6. SF 1s-p,1s-p; 0,0. MALE: AC 13(0). PF 6,4. TDC 1-2. SF 1s,1s-b; 0,1s; 0,0.

Notostigmatini

Notostigma WORKER (dimorphic)/QUEEN: AC 12(0). PF 6,4. TDC 11-13. SF 1p,1p. MALE: AC 13(0). PF ?. TDC 10. SF ? (from literature).

Formicini

Alloformica WORKER (queen unknown): AC 12(0). PF 6,4. TDC 5. SF 1s,1s. MALE: unknown.

Bajcaridris WORKER (queen unknown): AC 12(0). PF 6,4. TDC 5. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

Cataglyphis WORKER (a few dimorphic, some with marked size-variation)/QUEEN (some ergatoid): AC 12(0). PF 6,4. TDC 5-7 (1 in *C. bombycinus* group majors). SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1-4. SF 1s,1s.

Formica WORKER (some with marked size-variation)/QUEEN: AC 12(0). PF 6,4; 5,4. TDC 7-10(0-3). SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1-5. SF 1s,1s.

Polyergus WORKER/QUEEN (some ergatoid): AC 12(0). PF 4,3; 4,2. TDC 1. SF 1s,1s. MALE: AC 13(0). PF 4,2. TDC 1. SF 1s,1s.

Proformica WORKER (marked size-variation)/QUEEN (ergatoid): AC 12(0). PF 6,4. TDC 5. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

Rossomyrmex WORKER/QUEEN: AC 12(0). PF 6,4. TDC 4-6. SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 3-4. SF 1s,1s.

Melophorini

Melophorus WORKER (polymorphic)/QUEEN: AC 12(0). PF 6,4. TDC 3-6(0-1). SF 1s,1s. MALE: AC 13(0). PF 6,4. TDC 1. SF 1s,1s.

MYRMECIINAE

Myrmeciini

Myrmecia WORKER/QUEEN (some species ergatoid): AC 12(0). PF 6,4. TDC 9-18. SF 2p,2p; 2(1s-b,1b-p),2(1s-b,1p); 2s,2(1s,1p); 2s,2s. MALE: AC 13(0). PF 6,4. TDC 3-5. SF 2p,2p; 2(1s-b,1p),2(1b,1p); 2s,2(1s,1p).

Prionomyrmecini

Nothomyrmecia WORKER/QUEEN: AC 12(0). PF 6,4. TDC 27-32. SF 2(1s,1p),2(1s,1p). MALE: AC 13(0). PF 6,4. TDC 6-7. SF 2(1s,1p),2(1s,1p).

PSEUDOMYRMECINAE

Pseudomyrmecini

Myrcidris WORKER/QUEEN: AC 11(0). PF 5,3. TDC 4(1). SF 2(1s,1b),2(1s,1p). MALE: AC 13(0). PF 5,3. TDC 3. SF 2(1s,1b),2(1s,1b).

Pseudomyrmex WORKER/QUEEN: AC 12(0). PF 6,4; 6,3; 5,4; 5,3; 4,3. TDC 5-10(1-2). SF 2(1s,1b-p),2(1s,1p); 2s,2(1s,1p); 1s,2(1s,1p); 1s,1p. MALE: AC 12(0). PF 6,4; 6,3; 5,4; 5,3; 4,3. TDC 6-18. SF 2s,2(1s,1p).

Tetraponera WORKER (two species polymorphic)/QUEEN: AC 12(0). PF 6,4; 4,3; 3,3. TDC 3-6(0-2). SF 2p,2p; 2(1s-b,1b-p),2(1s-b,1p); 2s,2(1s,1p); 1s,2(1s,1p). MALE: AC 12(0). PF 6,4; 4,3; 3,3. TDC 2-6(0-1). SF 2p,2p; 2(1s-b,1b-p),2(1s-b,1p).

CERAPACHYINAE

Acanthostichini

Acanthostichus WORKER/QUEEN (some species ergatoid/subdichthadiiform): AC 12(gi). PF 2,3. TDC 1-10. SF 1p,1p. MALE: AC 12(0). PF 2,3. TDC 1. SF 1p,1p.

Cylindromyrmecini

Cylindromyrmex WORKER/QUEEN: AC 12(gi,3 weak). PF 2,3; 2,2. TDC 4-14. SF 2p,2p. MALE: AC 13(0). PF 2,3; 2,2. TDC 1. SF 2p,2p.

Cerapachyini

Cerapachys WORKER (at least two species polymorphic)/QUEEN (some species ergatoid): AC 9-12(gi,1). PF 4,3; 3,3; 3,2; 2,2. TDC 1-15(0-3). SF 2p,2p; 2(1s,1b-p),2(1s,1p); 1s-b,1p; 1p,1p. MALE (at least one ergatoid): AC 12-13(0). PF 5,3; 3,2. TDC 1-12. SF 1p,1p.

Simopone WORKER/QUEEN: AC 11-12(gi). PF 6,4; 3,2 (latter in only one species). TDC 1-9. SF 0,1p. MALE: unknown.

Sphinctomyrmex WORKER/QUEEN (some species ergatoid/subdichthadiiform): AC 11-12(gi,1). PF 3,3. TDC 4-9(0-4). SF 1p,1p. MALE: AC 12-13(0). PF 3,3. TDC 1-3. SF 1p,1p.

ECITONINAE

Cheliomyrmecini

Cheliomyrmex WORKER (polymorphic; queen unknown): AC 12(0). PF 2,3. TDC 2-18(0-5). SF 1p,1p. MALE: AC 13(0). PF 2,3. TDC 1. SF 1p,1p.

Ecitonini

Eciton WORKER (polymorphic)/QUEEN (dichthadiiform): AC 12(0). PF 2,3 in worker, 2,2 in queen. TDC 1-18. SF 1p,1p. MALE: AC 13(0). PF 2,2. TDC 1-2. SF 1p,1p.

Labidus WORKER (polymorphic)/QUEEN (dichthadiiform): AC 12(0,gi). PF 2,3 in worker, 2,2 in queen. TDC 3-15. SF 1p,1p. MALE: AC 13(0). PF 2,2. TDC 1. SF 1p,1p.

Neivamyrmex WORKER (most polymorphic, some species monomorphic)/QUEEN (dichthadiiform): AC 12(0,gi). PF 2,3; 2,2 in worker, 2,2 in queen. TDC 1-15(0-1). SF 1p,1p. MALE: AC 13(0). PF 2,3; 2,2. TDC 1. SF 1b,1p; 1p,1p.

Nomamyrmex WORKER (polymorphic)/QUEEN (dichthadiiform): AC 12(0). PF 2,3 in worker. TDC 4-8. SF 1p,1p. MALE: AC 13(0). PF 2,3; 2,2. TDC 1. SF 1p,1p.

LEPTANILLOIDINAE**Leptanilloidini**

Asphinctanilloides WORKER (queen unknown): AC 12(gi). PF 2,2. TDC 7-11. SF 1s,1p (from literature). MALE: unknown.

Leptanilloides WORKER (queen unknown): AC 12(gi). PF 2,2. TDC 7-11. SF 1s,1p. MALE: unknown.

AENICTINAE**Aenictini**

Aenictus WORKER (most monomorphic, a few species weakly polymorphic)/QUEEN (dichthadiiform): AC 8-10(gi,2-3 weak). PF 2,2 in worker, 2,1 in queen. TDC 1-20(0-5). SF 2s,2s; 1s-b,1s-p; 1s-b,0; 0,0. MALE: AC 13(0). PF 2,1. TDC 1. SF 1s,2s; 1s-b,1s-b; 0,0.

DORYLINAE**Dorylini**

Dorylus WORKER (polymorphic)/QUEEN (dichthadiiform): AC 7-12(0-gi). PF 2,2; 1,2 in worker, 2,1 in queen. TDC 1-8(0-7). SF 1p,1p in worker, 1s,1s in queen. MALE ("sausage fly"): AC 13(0). PF 2,1; 1,1. TDC 0-1. SF 1b-p,1b-p.

AENICTOGITONINAE**Aenictogitonini**

Aenictogiton WORKER/QUEEN: unknown. MALE: AC 13(gi). PF 1,1. TDC 0-1. SF 2(1s,1p),2(1s,1p); 1p,1p.

APOMYRMINAE**Apomyrmini**

Apomyrma WORKER/QUEEN: AC 12(gi-4 weak). PF 2,2. TDC 3-6. SF 2(1s-b,1p),2(1s-b,1p). MALE: unknown.

LEPTANILLINAE**Anomalomyrmini**

Anomalomyrma QUEEN (worker unknown): AC 12(0). PF ?. TDC > 20. SF 0,1p. MALE: unknown.

Protanilla WORKER (queen unknown): AC 12(0). PF 4,1. TDC 4-20. SF 0,1p. MALE: unknown.

Leptanillini

Leptanilla WORKER/QUEEN (dichthadiiform): AC 12(0-gi). PF 2,1; 1,1. TDC 1-4. SF 1s-p,2(1s,1p); 1s,1p; 1s,1s. MALE: AC 13(0). PF 1,1. TDC 0-2. SF 1s,2(1s,1p); 1s,2s; 1s,1s.

Phaulomyrma WORKER/QUEEN: unknown. MALE: AC 13(0). PF 1,1. TDC 0. SF 2s,2s (from literature).

Yavnella WORKER/QUEEN: unknown. MALE: AC 13(0). PF 1,1. TDC 0. SF 2s,2s.

AMBLIYOPONINAE**Amblyoponini**

- Adetomyrma* WORKER (queen unknown): AC 12(gi). PF 3,3. TDC 5-6. SF 1s,2(1s,1p). MALE: unknown.
- Amblyopone* WORKER/QUEEN: AC 7,9-12(gi,4). PF 5,3; 4,3; 4,2; 3,2; 2,2; 1,2. TDC 4-16. SF 2p,2p; 2(1s-p,1b-p),2(1s-b,1p); 2s,2(1s,1p); 1p,1p; 1s,2(1s,1p); 0,2(1s,1p); 0,1p; 0,0. MALE: AC 13(0). PF 5,3; 4,3; 4,2; 3,2; 2,2. TDC 1-3. SF 2s-b,2(1s-b,1p); 1s,2(1s,1p); 1p,1p.
- Myopopone* WORKER/QUEEN: AC 12(gi). PF 4,3. TDC 9-12. SF 2(1s-b,1p),2(1s-b,1p); 2s,2(1s,1p). MALE: AC 13(0). PF 4,3. TDC 1. SF 2(1s-b,1p),2(1s-b,1p).
- Mystrium* WORKER/QUEEN: AC 12(4). PF 4,3. TDC 19-30. SF 2s,2(1s,1p); 1s,2(1s,1p). MALE: AC 13(0). PF ?. TDC 0. SF 1s-b,2(1s-b,1p).
- Onychomyrmex* WORKER/QUEEN (ergatoid/subdichthadiiform): AC 12(gi). PF 2,2. TDC 9-10. SF 1s,1s; 0,0. MALE: AC 13(0). PF 2,2. TDC 1-2. SF ? (from literature).
- Concoctio* WORKER/QUEEN: AC 9(4). PF ?. TDC 1-2. SF 0,0. MALE: unknown.
- Bannapone* WORKER (queen unknown): AC 11(gi). PF ?. TDC 3. SF 0,1p (from literature). MALE: unknown.
- Prionopelta* WORKER/QUEEN: AC 8,10-12(3-4). PF 2,2. TDC 3. SF 1p,1p; 1s,1p; 0,1p. MALE: AC 13(0). PF 2,2. TDC 1-2. SF 1s-b,1p.
- Parapriopelta* WORKER/QUEEN: unknown. MALE: AC 10. PF 2,2. TDC 0. SF 0,2(1s,1p) (from literature).

PONERINAE**Ponerini**

- Harpegnathos* WORKER/QUEEN: AC 12(0). PF 4,4. TDC > 50. SF 2s,2(1s,1p). MALE: AC 13(0). PF 6,4. TDC 0. SF 2b-p,2(1b-p,1p).
- Anochetus* WORKER/QUEEN (some ergatoid): AC 12(0). PF 4,4; 4,3. TDC 2-22. SF 2(1s,1p),2(1s,1p); 2s,2(1s,1p); 1s,2(1s,1p); 1s,1p; 0,1p. MALE: AC 13(0). PF 6,3; 4,4; 4,3. TDC 0. SF 2s,2(1s,1p).
- Odontomachus* WORKER/QUEEN: AC 12(0). PF 4,4; 4,3. TDC 3-20. SF 2(1s,1p),2(1s,1p). MALE: AC 13(0). PF 6,4; 5,3. TDC 0. SF 2(1s,1p),2(1s,1p).
- Loboponera* WORKER/QUEEN: AC 12(gi). PF 2,2. TDC 2-6. SF 1p,1p. MALE: unknown.
- Plectroctena* WORKER/QUEEN (some species ergatoid): AC 12(gi). PF 3,4; 2,3; 2,2. TDC 0-2. SF 1p,1p. MALE: AC 13(0). PF 6,4; 5,4; 4,4. TDC 0-1. SF 1p,1p.
- Psalidomyrmex* WORKER/QUEEN: AC 12(gi). PF 3,4. TDC 1-11(0-4). SF 1p,1p. MALE: AC 13(0). PF 3,4. TDC 0-1. SF 1p,1p.
- Dolioponera* WORKER (queen unknown): AC 12(gi). PF ?. TDC 2. SF 1p,1p (from literature). MALE: unknown.
- Centromyrmex* WORKER/QUEEN: AC 12(gi). PF 4,3. TDC 4-14. SF 2(1s,1p),2(1s-b,1p); 1s-p,1p; 0,1p. MALE: AC 13(0). PF 4,3. TDC 0-1. SF 0,1p.
- Asphinctopone* WORKER/QUEEN: AC 12(gi). PF 4,4. TDC 5. SF 1p,1p. MALE: unknown.
- Diacamma* WORKER/gamergate (queen absent): AC 12(0). PF 4,4; 4,3. TDC 11-13. SF 2(1s,1b-p),2(1s,1p); 2s,2(1s,1p). MALE: AC 13(0). PF 6,4. TDC 0-1. SF 2(1s,1b),2(1s-b,1p).
- Myopias* WORKER/QUEEN: AC 12(gi,4). PF 4,4; 3,3; 2,2. TDC 3-7. SF 2(1s,1p),2(1s,1p); 1p,2(1s,1p); 1p,1p. MALE: unknown.
- Odontoponera* WORKER/QUEEN: AC 12(0-gi). PF 4,4. TDC 5-6. SF 2(1s,1p),2(1s,1p). MALE: AC 13(0). PF 6,4. TDC 0. SF 2(1s-b,1b-p),2(1s-b,1p).
- Pachycondyla* WORKER (some species gamergate)/QUEEN (some species ergatoid): AC 12(0-gi). PF 4,4; 4,3; 3,3; 2,2. TDC 5-30. SF 2p,2p; 2(1b,1p),2p; 2(1s-b,1b-p),2(1s-b,1p); 2s,2(1s,1p); 1p,1p. MALE: AC 13(0). PF 6,4; 6-5,4; 5-4,4; 5,4; 5,3; 4,4; 4,3; 3,2. TDC 0-2. SF 2(1s-p,1b-p),2(1s-b,1p); 2b,2(1b,1p).
- Streblognathus* WORKER/gamergate (queen absent): AC 12(0). PF 4,4. TDC 5-7. SF 2(1s-b,1p),2(1s-b,1p). MALE: AC 13(0). PF 5-4,3. TDC 0. SF 2(1b,1p),2(1b,1p).

Dinoponera WORKER/gamergate (queen absent): AC 12(0). PF 4,4. TDC 6(1). SF 2(1s,1p),2(1s,1p). MALE: AC 13(0). PF 5,3. TDC 0. SF 2p,2p; 2(1b,1p),2(1b,1p).

Phrynoponera WORKER/QUEEN: AC 12(gi). PF 4,4. TDC 4-6. SF 2(1s-b,1p),2(1s-b,1p). MALE: AC 13(0). PF 6,4. TDC 0-1. SF 2(1b,1p),2(1b,1p).

Leptogenys WORKER (at least one species gamergate)/QUEEN (some species ergatoid): AC 12(0-gi). PF 4,4; 4,3; 3,3. TDC 1-12(0-10). SF 2p,2p; 2(1s-b,1b-p),2(1s-b,1p); 2b,2(1b,1p); 2s,2(1s,1p). MALE: AC 13(0). PF 6,4; 5,4; 4,4. TDC 0. SF 2(1s-b,1p),2(1s-b,1p).

Cryptopone WORKER/QUEEN: AC 12(gi,4,5 weak). PF 2,2. TDC 4-9. SF 2(1s,1b-p),2(1s,1p); 2s,2(1s,1p); 1p,1p; 1s,1p. MALE: AC 13(0). PF 2,2. TDC 0. SF 2(1s,1p),2(1s,1p).

Ponera WORKER/QUEEN: AC 12(gi,4,5). PF 2,2. TDC 7-13. SF 1p,1p; 1b,1p. MALE: AC 13(0,gi). PF 5,3; 5,2; 2,2. TDC 1. SF 1p,1p.

Hypoponera WORKER/QUEEN (a few species ergatoid): AC 12(gi,4,5). PF 1,2; 1,1. TDC 7-18. SF 1p,1p; 1b,1p. MALE (at least one species ergatoid): AC 13(0,gi). PF 1,4; 1,3; 1,2; 1,1. TDC 0-1. SF 1p,1p.

Emeryopone WORKER/QUEEN: AC 12(gi). PF 3,3. TDC 5. SF 1s,1p. MALE: unknown.

Simopelta WORKER/QUEEN (ergatoid/subdichthadiiform): AC 12(gi). PF 2,3; 2,2. TDC 1-8. SF 1p,1p. MALE: unknown.

Belonopelta WORKER/QUEEN: AC 12(gi). PF 3,3. TDC 5-6. SF 1p,1p. MALE: unknown.

Thaumatomyrmecini

Thaumatomyrmex WORKER/QUEEN: AC 12(gi). PF 3,2. TDC 3-4. SF 1s,1p; 0,1p. MALE: AC 13(0,gi). PF 3,2. TDC 0. SF 1s,1p.

Platythyreini

Platythyrea WORKER (a few species gamergate)/QUEEN (some species ergatoid): AC 12(0,gi). PF 6,4; 4,4; 4,3; 3,3; 3,2. TDC 1-15. SF 2p,2p; 2(1b,1p),2(1b,1p). MALE: AC 13(0). PF 6,4; 5,3; 4,3. TDC 1-15. SF 2p,2p; 2(1b,1p),2p.

ECTATOMMINAE

Ectatommini

Ectatomma WORKER/QUEEN: AC 12(0). PF 2,2. TDC 12-30. SF 1s-b,1s-b. MALE: AC 13(0). PF 5,3; 4,3. TDC 8-9. SF 1b-p,1b-p.

Gnamptogenys WORKER/QUEEN (some species ergatoid): AC 12(gi,3,4). PF 3,2; 2,2. TDC 1-25. SF 1s-p,1s-p. MALE: AC 13(0). PF 5,3; 4,3. TDC 5-12. SF 1s-p,1b-p.

Rhytidoponera WORKER (some species gamergate)/QUEEN (many species ergatoid): AC 12(0,gi). PF 3,2; 2,2. TDC 12-30. SF 1s-p,1s-p; 0,1b-p; 0,0. MALE: AC 13(0). PF 6,4; 5,3; 4,3. TDC 9-18. SF 2(1s,1s-p),2(1s,1p); 2s,2(1s,1p); 1b-p,1p.

Typhlomyrmecini

Typhlomyrmex WORKER/QUEEN: AC 12(3-4). PF 1,2. TDC 7-15. SF 1s,1s; 1s,1p; 0,0. MALE: AC 13(0). PF 2,2; 1,2. TDC 2-9. SF 1s,1s; 1b,1p.

HETEROPONERINAE

Heteroponerini

Acanthoponera WORKER/QUEEN: AC 12(4-5). PF 6,4. TDC 6-9. SF 1p,1p. MALE: PF 6,4 (from literature).

Heteroponera WORKER/QUEEN (most species ergatoid): AC 12(3-4). PF 4,3; 3,3; 3,2; 2,2. TDC 5-9. SF 1p,1p. MALE: PF 4,3 (from literature).

Aulacopone QUEEN (worker unknown): AC 12(gi). PF ?. TDC 5. SF 1p,1p (from literature). MALE: unknown.

PARAPONERINAE**Paraponerini**

Paraponera WORKER/QUEEN: AC 12(0). PF 5,3. TDC 9-13. SF 2(1s,1p),2(1s,1p).
 MALE: AC 13(0). PF 5,3. TDC 0. SF 2(1b,1p),2(1b,1p).

PROCERATIINAE**Proceratiini**

Discothyrea WORKER/QUEEN (some species ergatoid): AC 6-12(gi,1). PF 5,4; 4,4; 4,3; 3,4; 1,3. TDC 1. SF 1s-b,1b-p; 0,1p. MALE: AC 13(0-gi weak). PF 5,4. TDC 1. SF 1b-p,1p.

Proceratium WORKER/QUEEN (some species ergatoid): AC 12(0,gi). PF 4,3; 3,3; 3,2; 2,2. TDC 3-12. SF 1s-p,1p; 0,1p. MALE: AC 13(0). PF 5,3; 5,2; 4,3. TDC 1-4. SF 1b-p,1p.

Probolomyrmecini

Probolomyrmex WORKER/QUEEN: AC 12(gi). PF 4,2. TDC 6-8. SF 1p,1p. MALE: AC 13(0). PF 4,2. TDC 1. SF 1p,1p.

AGROECOMYRMECINAE**Agroecomyrmecini**

Tatuidris WORKER (queen unknown): AC 7(2). PF 1,2. TDC 2. SF 1b-p,1p. MALE: unknown.

MYRMICINAE**Basicerotini**

Basicros WORKER/QUEEN: AC 12(2). PF 2,2; 1,2. TDC 11-15. SF 0,0. MALE: AC 13(0). PF 1,2. TDC 8-12. SF 0,0.

Creightoidris QUEEN (worker unknown): AC 12(2). PF ?. TDC 12. SF 0,0. MALE: unknown.

Protalaridris WORKER (queen unknown): AC 9(2). PF 1,2. TDC 5-6. SF 0,0. MALE: unknown.

Octostruma WORKER/QUEEN (a few species ergatoid): AC 8(2). PF 1,2. TDC 6-12. SF 0,0. MALE: AC 13(0). PF 1,2. TDC 1-2. SF 0,0.

Eurhopalothrix WORKER/QUEEN: AC 7(2). PF 1,2. TDC 9-14. SF 0,0. MALE: AC 13(0). PF 1,2; 1,1. TDC 1-2. SF 0,0.

Rhopalothrix WORKER/QUEEN: AC 7(2). PF 1,2. TDC 6-12. SF 0,0. MALE: AC 13(0). PF ?. TDC 9. SF 0,0.

Talaridris WORKER (queen unknown): AC 7(2). PF ?. TDC 12-14. SF 0,0. MALE: unknown.

Dacetini

Daceton WORKER (polymorphic)/QUEEN: AC 11(gi). PF 5,3. TDC 2. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 1. SF 0,0.

Acanthognathus WORKER/QUEEN: AC 11(2). PF 0,1. TDC 3-8. SF 0,0. MALE: AC 12(0). PF 0,1. TDC 0. SF 0,0.

Orectognathus WORKER (one species polymorphic)/QUEEN: AC 5(2). PF 5,3. TDC 3. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 0-1. SF 0,0.

Microdaceton WORKER/QUEEN: AC 6(2). PF 3,2. TDC 3. SF 0,0. MALE: unknown.

Mesostruma WORKER/QUEEN: AC 6(2). PF 5,3. TDC 2. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 1. SF 0,0.

Colobostruma WORKER/QUEEN: AC 4-8(2). PF 5,3. TDC 8-15. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 0-1. SF 0,0.

Epopostruma WORKER/QUEEN: AC 6(2). PF 5,3. TDC 2. SF 0,0. MALE: unknown.

Pyramica WORKER/QUEEN (a few ergatoid): AC 4-6(2). PF 1,1; 0,1. TDC 5-30. SF 0,0. MALE: AC 13(0). PF 1,1. TDC 0-3. SF 0,0.

Strumigenys WORKER (at least one species polymorphic)/QUEEN: AC 4-6(2). PF 1,1; 0,1. TDC 2-6. SF 0,0. MALE: AC 13(0). PF 1,1. TDC 1-2. SF 0,0.

Phalacromyrmecini

Phalacromyrmex WORKER (queen unknown): AC 11(2). PF 3,2. TDC 10. SF 0,0. MALE: unknown.

Ishakidris WORKER (queen unknown): AC 9(2). PF 3,2. TDC 10-12. SF 0,0. MALE: unknown.

Pilotrochus WORKER (queen unknown): AC 8(2). PF 3,2. TDC 12. SF 0,0. MALE: unknown.

Cataulacini

Cataulacus WORKER/QUEEN: AC 11(3). PF 5,3. TDC 3-8. SF 0,0. MALE: AC 11(3). PF 5,3. TDC 3-6. SF 0,0.

Cephalotini

Cephalotes WORKER (dimorphic)/QUEEN: AC 11(2,3). PF 5,3. TDC 3-10. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 1-8. SF 0,0.

Procryptocerus WORKER/QUEEN: AC 11(gi-3). PF 5,3. TDC 3-6. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 0. SF 1s-b, 1s-p.

Attini

Atta WORKER (polymorphic)/QUEEN: AC 11(gi). PF 4,2. TDC 8-12. SF 0,0. MALE: AC 13(0). PF 4,2. TDC 8-12. SF 0,0.

Acromyrmex WORKER (polymorphic)/QUEEN: AC 11(gi). PF 4,2. TDC 8-11. SF 0,0. MALE: AC 13(gi). PF 4,2 (from literature).

Pseudoatta QUEEN (inquiline, worker absent): AC 11(gi). PF ?. TDC 7-8. SF 0,0 (from literature). MALE: AC 11 (from literature).

Trachymyrmex WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2. TDC 7-12. SF 0,0. MALE: AC 13(gi-4). PF 4,2. TDC 3-7. SF 0,0.

Sericomyrmex WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2. TDC 7-9. SF 0,0. MALE: AC 12-13(0) (from literature).

Mycetagroicus WORKER/QUEEN: AC 11(gi-3 weak). PF ?,2. TDC 7-10. SF 0,0 (from literature). MALE: unknown.

Mycetophylax WORKER/QUEEN: AC 11(gi-3 weak). PF ?. TDC 5. SF 0,0. MALE: no data.

Cyphomyrmex WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2. TDC 5,7. SF 0,0. MALE: AC 12-13(0). PF 4,2. TDC 2-5. SF 0,0.

Mycetarotes WORKER/QUEEN: AC 11(gi-3 weak). PF ?. TDC 4-6(?). SF 0,0. MALE: no data.

Mycetosoritis WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2. TDC 6-7. SF 0,0. MALE: AC 13(0). PF ?. TDC 2. SF 0,0.

Myrmicocrypta WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2. TDC 7-9. SF 0,0. MALE: AC 13(0). PF ?. TDC 7-9. SF 0,0.

Mycocepurus WORKER/QUEEN: AC 11(gi-3 weak). PF 4,2; 3,2. TDC 5-6. SF 0,0. MALE: AC 13(0). PF ?. TDC 0-3. SF 0,0.

Apterostigma WORKER/QUEEN: AC 11(gi-3 weak). PF 3,2. TDC 8-14. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 0. SF 0,0.

Blepharidattini

Blepharidatta WORKER/QUEEN (at least one species ergatoid): AC 11(2). PF 3,2. TDC 5. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 1. SF 0,0.

Wasmannia WORKER/QUEEN: AC 11(2). PF 3,2. TDC 5. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 5. SF 0,0.

Stenammini

Lordomyrma WORKER/QUEEN (some species ergatoid): AC 12(3). PF 4,3; 3,3; 3,2. TDC 7-9. SF 0,0. MALE: AC 13(0). PF ?. TDC 4-5. SF 0,0.

Ancyridris WORKER (queen unknown): AC 12(2-3). PF 3,2; 2,2. TDC 7-9. SF 0,0. MALE: unknown.

- Cyphoidris* WORKER/QUEEN: AC 11(3). PF 4,3. TDC 9-12. SF 0,0. MALE: AC 10(0). PF 4,3. TDC 7. SF 0,0.
- Tetheamyrmex* WORKER (queen unknown): AC 11(2). PF 2,2. TDC 6-7. SF 0,0. MALE: unknown.
- Rostromyrmex* WORKER/QUEEN: AC 9(3). PF 2,2. TDC 6-8. SF 0,0. MALE: AC 10(0). PF 2,1. TDC 0. SF 0,0.
- Calptomyrmex* WORKER/QUEEN (a few species ergatoid): AC 12(3). PF 2,2. TDC 6-9. SF 0,0. MALE: AC 12(0). PF 3,2; 2,2. TDC 5-6. SF 0,0.
- Dicroaspis* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 7-9. SF 1s,1s; 0,0. MALE: AC 11(gi). PF 2,2. TDC 6. SF 1s,1s.
- Lachnomyrmex* WORKER/QUEEN: AC 11(2). PF 2,2. TDC 5. SF 0,0. MALE: unknown.
- Dacatinops* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 9-15. SF 0,0. MALE: AC 11-12(0). PF 2,2. TDC 0. SF 0,0.
- Indomyrmex* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 8-9. SF 0,0. MALE: AC 12(0). PF 2,2. TDC 1. SF 0,0.
- Lasiomyrmex* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 7-9. SF 0,0. MALE: unknown.
- Vollenhovia* WORKER/QUEEN: AC 11-12(3). PF 2,2; 2,1. TDC 5-8. SF 0,0. MALE: AC 12-13(gi). PF 2,2. TDC 0. SF 0,0.
- Rogeria* WORKER/QUEEN: AC 12(3). PF 3,3; 3,2; 2,2; 2,1. TDC 4-9. SF 0,0. MALE: AC 13(0-gi). PF ?. TDC 4-5. SF 0,0.
- Stenamma* WORKER/QUEEN: AC 12(3-4). PF 4,3; 3,2; 2,2. TDC 6-9(0,1). SF 1s,1s; 0,1s; 0,0. MALE: AC 11,13(gi). PF 4,3; 3,2; 2,2. TDC 3-6. SF 1s,1s; 0,0.
- Bariamyrmex* QUEEN (worker unknown): AC 12(3). PF 3,2. TDC 9. SF 1s,1s. MALE: unknown.
- Dacatria* WORKER (queen unknown): AC 12(3). PF 3,2. TDC 5. SF 0,0. MALE: unknown.
- Proatta* WORKER/QUEEN: AC 12(3). PF 3,2. TDC 4-5. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 4. SF 0,0.
- Genera incertae sedis*
- Adelomyrmex* WORKER/QUEEN: AC 12(2). PF 2,2; 1,2; 1,1. TDC 4-7(1). SF 0,0. MALE: unknown.
- Baracidris* WORKER/QUEEN: AC 12(2). PF 2,2. TDC 5. SF 0,0. MALE: unknown.

Solenopsidini

- Allomerus* WORKER/QUEEN: AC 7-11(3). PF 3,2. TDC 5. SF 0,0. MALE: AC 13(0) (from literature).
- Anillomyrmex* WORKER (queen unknown): AC 10(3). PF 2,1. TDC 3-4. SF 0,0. MALE: unknown.
- Bondroitia* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 4 (worker), 3 (queen). SF 0,0. MALE: AC 12-13(0). PF 2,2. TDC 2. SF 0,0.
- Diplomorium* WORKER/QUEEN: AC 11(3 weak). PF 2,2. TDC 4-5. SF 0,0. MALE: unknown.
- Epelysidris* WORKER (queen unknown): AC 12(3). PF 3,2. TDC 5(2). SF 0,0. MALE: unknown.
- Megalomyrmex* WORKER/QUEEN (a few species ergatoid): AC 12(gi,3). PF 4,3; 3,2; 3,1. TDC 5-15 (usually 5-6). SF 1s,1s; 0,0. MALE: AC 11(4); 13(0). PF 4,3; 3,2. TDC 2-5. SF 1s,1s.
- Monomorium* WORKER (some species polymorphic)/intercastes in at least one species/QUEEN (some species ergatoid): AC 10-12(gi,3,4). PF 5,3; 3,3; 2,3; 2,2; 1,2; 1,1 (last two in inquiline only). TDC 3-5 (2 in some inquilines). SF 1s,1s; 0,0. MALE: AC 11-13(0). PF 3,2; 2,2. TDC 1-4. SF 0,0.
- Nothidris* WORKER (queen unknown): AC 12(3). PF 4,3. TDC 5. SF 1s,1s. MALE: unknown.
- Oxyepoecus* WORKER/QUEEN: AC 11(3). PF 2,2. TDC 4. SF 0,0. MALE: AC 13(0). PF 2,2. TDC 4. SF 0,0.

- Carebarella* WORKER/QUEEN: AC 10(2). PF 1,2. TDC 4. SF 0,0. MALE: AC 13(0) (from literature).
- Solenopsis* WORKER (some species polymorphic)/QUEEN: AC 9-10(2) in worker, 10-11(2) in queen (queen often with one antennomere more than worker). PF 2,2; 1,2. TDC 3-4 (0 in maxima worker of at least one polymorphic species). SF 1s,1s; 0,0. MALE: AC 12-13(0). PF 2,2. TDC 1-3. SF 0,0.
- Machomyrma* WORKER (dimorphic)/QUEEN: AC 11(3). PF 2,2. TDC 5. SF 0,0. MALE: AC 13(0). PF 2,2. TDC 2-3. SF 0,0.
- Adlerzia* WORKER (dimorphic)/QUEEN: AC 11(3). PF 4,3. TDC 4-5 (from literature). SF ? . MALE: unknown.
- Afroxyidris* WORKER (queen unknown): AC 10(2). PF ? . TDC 3. SF 0,0. MALE: unknown.
- Carebara* WORKER/QUEEN: AC 9(2) in worker, 10(gi) in queen. PF 2,2 in worker, 3,2; 2,2 in queen. TDC 3-5 in worker, 4-7 in queen. SF 0,0. MALE: AC 13(0). PF 3,2; 2,2. TDC 3-5. SF 0,0.
- Paedalgus* WORKER/QUEEN: AC 8-9(2) in worker, 10(2-4) in queen. PF 2,2 in worker, 3,2; 2,2 in queen. TDC 4-5 in worker, 6-7 in queen. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 4. SF 0,0.
- Oligomyrmex* WORKER (dimorphic)/QUEEN: AC 9-11(2). PF 2,2; 1,2. TDC 4-6. SF 1s-p,1s-p; 0,0. MALE: AC 12-13(0). PF 3,2; 2,2. TDC 3-4. SF 1s,1s; 0,0.
- Pheidologeton* WORKER (polymorphic)/QUEEN: AC 11(2). PF 2,2. TDC 4-6 in worker (edentate edge in some maxima workers), 5-7 in queen. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 4-5. SF 0,0.
- Mayriella* WORKER/QUEEN: AC 10(2). PF 4,3. TDC 4. SF 0,0. MALE: unknown.
- Tranopelta* WORKER/QUEEN: AC 11(3). PF 3,2. TDC 4-5 in worker, 6 in queen. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 3. SF 0,0.

Myrmicini

- Myrmica* WORKER/QUEEN: AC 12(3-4). PF 6,4. TDC 6-10. SF 1s-p,1s-p; 0,0. MALE: AC 12-13(4-5; gi-3 in some social parasites). PF 6,4. TDC 3-8. SF 1b-p,1b-p; 0,1b-p; 0,0.
- Manica* WORKER/QUEEN: AC 12(4-5). PF 6,4. TDC 10-16. SF 1s-p,1s-p. MALE: AC 13(0). PF 6,4. TDC 11-13. SF 1p,1p.
- Pogonomyrmex* WORKER/QUEEN: AC 12(4-5). PF 5,4; 4,3. TDC 5-8. SF 1s-p,1s-p. MALE: AC 13(0). PF 5,4; 4,3. TDC 2-8. SF 1s-p,1b-p.
- Hylomyrma* WORKER/QUEEN: AC 12(4). PF 4,3. TDC 5-7. SF 1s-p,1b-p. MALE: AC 13(0). PF 4,3. TDC 4-6. SF 1p,1p.
- Eutetramorium* WORKER/QUEEN: AC 12(3). PF 4,3; 4,2. TDC 6-8. SF 1s-b,1s-b; 0,0. MALE: AC 13(0). PF 4,3. TDC 7. SF 1s-b,1b-p.
- Huberia* WORKER/QUEEN: AC 11(3-4). PF 5,3. TDC 6-12. SF 0,0. MALE: AC 12(0). PF 5,3. TDC 7-9. SF 0,0.
- Secostruma* WORKER (queen unknown): AC 12(3). PF 4,3. TDC 5. SF 1s,1s. MALE: unknown.

Tetramoriini

- Anergates* QUEEN (inquiline, worker absent): AC 10-11(gi). PF 1,1. TDC 1. SF 0,0. MALE ("pupoidal"): AC 10-11(gi). PF 1,1. TDC 0. SF 0,0.
- Teleutomyrmex* QUEEN (inquiline, worker absent): AC 10-11(3). PF 1,1. TDC 1. SF 0,0. MALE: AC 10(0). PF 1,1. TDC 1. SF 0,0.
- Strongylognathus* WORKER/QUEEN: AC 12(3). PF 4,3. TDC 1. SF 1s,1s. MALE: AC 10(0). PF 4,3. TDC 1. SF 1s,1s; 0,0.
- Tetramorium* WORKER/QUEEN: AC 10-12(3). PF 4,3; 4,2; 3,3; 3,2; 2,2. TDC 6-11. SF 1s,1s; 0,0. MALE: AC 10-11(0). PF 4,3; 4,2; 3,3; 3,2. TDC 4-7. SF 1s,1s; 0,0.
- Decamorium* WORKER/QUEEN: AC 10(3). PF 4,3. TDC 6-8. SF 1s,1s-b. MALE: AC 10(0). PF 4,3. TDC 5-6. SF 1s,1s.
- Rhoptromyrmex* WORKER/QUEEN (polymorphic in some species): AC 11-12(3). PF 4,2; 4-3,2; 3,2. TDC 7-9 (only 5 in some queens). SF 1s,1s; 0,0. MALE: AC 8-10(3).

PF 3,2. TDC 4-7. SF 0,0.

Pheidolini

Anisopheidole WORKER (polymorphic)/QUEEN: AC 12(3). PF 2,2. TDC 8-10 (worker minor), 2-7 (blunt and ill-defined, worker maxima and queen). SF 0,0. MALE: AC 13(0). PF ?. TDC 1. SF ?.

Aphaenogaster WORKER (at least one species polymorphic)/QUEEN (at least one species ergatoid): AC 12(0,gi,4 weak). PF 5,3; 4,3. TDC 7-16(0-6). SF 1s,1s; 0,0. MALE: AC 13(0,gi,4 weak). PF 5,3; 4,3. TDC 2-12. SF 1s,1s; 0,0.

Chimaeridris WORKER (queen unknown): AC 12(3). PF 2,2. TDC 2. SF 0,0. MALE: unknown.

Goniomma WORKER/QUEEN: AC 12(3,4). PF 4,3. TDC 5-9. SF 1s,1s-b. MALE: AC 13(0,gi,4 weak). PF 4,3. TDC 3-6. SF 1s,1s.

Kartidris WORKER (queen unknown): AC 12(3). PF 4,3. TDC 5-6. SF 0,0. MALE: unknown.

Lophomyrmex WORKER/QUEEN: AC 11(3). PF 2,2. TDC 7-18(3-5). SF 1s-p,1s-p; 0,0. MALE: AC 13(0). PF 2,2. TDC 1-7(0-5). SF 1s-p,1s-p.

Messor WORKER (most species polymorphic, at least two species monomorphic)/QUEEN: AC 12(0,gi,4 weak). PF 5,3; 4,3 (within species often with 5,3 in larger workers, 4,3 in smaller). TDC 6-18 (masticatory margin often worn down to edentate edge, especially in largest workers). SF 1s-b,1s-p; 0,0. MALE: AC 13(0). PF 5,3. TDC 4-12. SF 1s-b,1s-p.

Ocymyrmex WORKER/QUEEN (extreme ergatoid): AC 12(0). PF 5,3; 4,3; 4-3,3; 3,3; 2,3. TDC 5-7 (plus 1-2 on internal masticatory margin). SF 1s,1s; 0,0. MALE: AC 13(0). PF 3,2. TDC 0-1. SF 1s,1s; 0,0.

Oxyopomyrmex WORKER/QUEEN: AC 11(3). PF 3,3. TDC 6-7. SF 1s,1s; 0,0. MALE: AC 12 (from literature).

Pheidole WORKER (dimorphic)/QUEEN: AC 9-12(gi,3,4). PF 3,2; 2,2; 1,1; 1,0 (last two in inquiline species only). TDC 8-18 (minor worker); 3-7 (major worker and queen); 0-1 (inquilines). SF 0,0. MALE: AC 8, 11-13(0). PF 3,2; 2,2; 1,1; 1,0 (last two in inquilines only). TDC 0-7 (0-1 in inquilines, 2-7 otherwise). SF 0,0.

Lenomyrmecini

Lenomyrmex WORKER/QUEEN: AC 11(2). PF 2,2. TDC 10-20. SF 0,0. MALE: unknown.

Paratopulini

Paratopula WORKER/QUEEN: AC 12(3). PF 5,3. TDC 8-11. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 5-8. SF 0,0.

Crematogastrini

Crematogaster WORKER (some species polymorphic)/QUEEN: AC 9-11(2-4). PF 5,3; 4,3; 3,2. TDC 4-5 (ca 8 in some queens). SF 0,0. MALE: AC 11-12(0). PF 5,3. TDC 0-4. SF 0,0.

Recurvidris WORKER (queen unknown): AC 11(3). PF 4,3. TDC 4-5. SF 0,0. MALE: AC 12(0). PF 4,3. TDC 0. SF 0,0.

Ankylomyrmini

Ankylomyrma WORKER (queen unknown): AC 12(3-4). PF 5,3. TDC 5. SF 1s,1b. MALE: unknown.

Liomyrmecini

Liomyrmex WORKER/QUEEN: AC 11(3). PF 2,2. TDC 4. SF 2(1s,1b),2(1s,1b-p); 2s,2(1s,1b-p). MALE: AC 12(0). PF 2,2. TDC 3. SF 2(1s,1b),2(1s,1b).

Meranoplini

Meranoplus WORKER/QUEEN: AC 9(3). PF 5,3. TDC 3-5. SF 1s,1s; 0,0. MALE: AC

13(0). PF 5,3. TDC 1. SF 0,1s; 0,0.

Myrmicariini

Myrmecaria WORKER/QUEEN: AC 7(gi-3). PF 3,3. TDC 4-5. SF 1s,1s; 0,0. MALE: AC 13(0). PF 3,3. TDC 0. SF 1s,1s.

Formicoxenini

Leptothorax WORKER/intercastes in some species/QUEEN: AC 11(3). PF 5,3. TDC 5-6 (6 usual). SF 0,0. MALE: AC 12(0). PF 5,3. TDC 0. SF 0,0.

Cardiocondyla WORKER/QUEEN: AC 11-12(3). PF 5,3. TDC 5. SF 0,0. MALE (dimorphic, alate/ergatoid): AC 8-13(0; gi in some ergatoids). PF 5,3. TDC 1-5. SF 0,0.

Formicoxenus WORKER/intercastes/QUEEN: AC 11(3). PF 5,3; 4,3. TDC 5-6. SF 0,0. MALE (alates/intermediates/ergatoids): AC 12(0 in alates; gi in ergatoids). PF 5,3; 4,3. TDC 0-4. SF 0,0.

Harpagoxenus WORKER/intercastes/QUEEN: AC 11(3-4). PF 5,3. TDC 0. SF 0,0. MALE: AC 12(0). PF 5,3. TDC 0-2. SF 0,0.

Temnothorax WORKER/intercastes in one species/QUEEN: AC 11-12(3). PF 5,3. TDC 5-6 (5 usual). SF 0,0. MALE: AC 12-13(3-4). PF 5,3. TDC 3-5. SF 0,0.

Chalepoxenus WORKER/QUEEN: AC 12(3). PF 5,3. TDC 5-6. SF 0,0. MALE: AC 13(4). PF 5,3. TDC 5-6. SF 0,0.

Myrmoxenus WORKER/QUEEN: AC 11-12(3). PF 5,3; 4,2; 3,2. TDC 3-5. SF 0,0. MALE: AC 11-13(3-4). PF 5,3; 4,2; 3,2. TDC 2-5. SF 0,0.

Protomognathus WORKER/intercastes/QUEEN: AC 11(3-4). PF 4,2. TDC 3-4. SF 0,0. MALE: AC 12(0). PF ? . TDC 0-3. SF 0,0.

Ochetomyrmex WORKER/QUEEN: AC 11(3). PF 3,2. TDC 4. SF 0,0. MALE: AC 13(0). PF 3,2. TDC 4. SF 0,0.

Nesomyrmex WORKER/QUEEN: AC 11-12(3). PF 5,3. TDC 3-5. SF 2s,2s; 0,0. MALE: AC 12-13(0). PF 5,3. TDC 5. SF 0,0.

Gauromyrmex WORKER/QUEEN (at least one species ergatoid): AC 11(3). PF 2,2. TDC 5-6. SF 0,0. MALE: unknown.

Xenomyrmex WORKER/QUEEN: AC 11(2-3). PF 4,2. TDC 5-6. SF 0,0. MALE: AC 12(0). PF ? . TDC 3-4. SF 0,0 (from literature).

Atopomyrmex WORKER (polymorphic)/QUEEN: AC 9, 10, 12(3). PF 5,3; 4,3. TDC 4-7. SF 0,0. MALE: AC 12(0). PF 5,3. TDC 0. SF 1b,1b-p; 0,0.

Podomyrma WORKER/QUEEN: AC 11(3). PF 5,3; 4,3. TDC 5-6. SF 0,0. MALE: AC 12(0). PF 5,3; 4,3. TDC 1-2. SF 0,0.

Dilobocondyla WORKER/QUEEN: AC 12(3). PF 4,3; 3,3. TDC 6. SF 0,0. MALE: AC 13(0). PF 4,3. TDC 5. SF 0,0.

Terataner WORKER/QUEEN: AC 12(3). PF 5,3; 4,3. TDC 5-6. SF 1s,1s; 0,0. MALE: AC 13(0). PF 4,3. TDC 5-6. SF 1s,1s.

Peronomyrmex WORKER (queen unknown): AC 11(gi). PF 5,3. TDC 5-6. SF 0,0 (from literature). MALE: unknown.

Romblonella WORKER/QUEEN (ergatoid): AC 12(3). PF 5,3. TDC 6. SF 0,0. MALE: AC 13(0). PF 5,3. TDC 6-7. SF 0,0 (from literature).

Poecilomyrma WORKER/QUEEN: AC 12(3). PF 5,3. TDC 6. SF 0,0. MALE: AC 12(0). PF 5,3. TDC 5. SF 0,0.

Rotastruma WORKER/QUEEN: AC 12(3). PF 5,3. TDC 6. SF 0,0. MALE: unknown.

Vombisidris WORKER/QUEEN: AC 12(3). PF 5,3. TDC 5. SF 0,0. MALE: unknown.

Stereomyrmex WORKER/QUEEN (at least one species ergatoid): AC 11(3). PF 5,3. TDC 4-5. SF 0,0. MALE: AC 11(4-5) (from literature).

Stegomyrmecini

Stegomyrmex WORKER/QUEEN: AC 12(3). PF 2,2. TDC 12-15. SF 1s-b,1s-b. MALE: AC 13(0) (from literature).

Myrmecini

Myrmecina WORKER/QUEEN: AC 11-12(3). PF 4,3; 3,2. TDC 7-9. SF 0,0. MALE: AC 13(0). PF 4,3. TDC 0. SF 0,0.

Acanthomyrmex WORKER (dimorphic)/QUEEN: AC 12(3). PF 4,3. TDC 7-12 (minor worker), 0-3 (major worker and queen). SF 1s,1s. MALE: AC 13(0). PF 4,3. TDC 6-8. SF 1s,1s.

Pristomyrmex WORKER/QUEEN (some ergatoid, one species queenless with thelytokous reproductive workers): AC 11(3). PF 5,3; 4,3; 4,2; 2,3; 2,2; 1,3; 1,2. TDC 3-5(0-1). SF 1s,1s; 0,0. MALE: AC 12(0). PF 5,3; 2,3; 1,3. TDC 0. SF 0,0.

Perissomyrmex WORKER/QUEEN: AC 9(3). PF 4,2. TDC 3(1). SF 0,0. MALE: unknown.

Metaponini

Metapone WORKER/QUEEN: AC 11(3). PF 2,3; 1,3. TDC 4-5. SF 1p,1p. MALE: AC 12(0). PF 2,2; 1,2. TDC 3-5. SF 1p,1p.

Melissotarsini

Melissotarsus WORKER/QUEEN: AC 6(2). PF 0,1. TDC 1-4. SF 0,0. MALE: AC 11-12(0). PF 0,1. TDC 0-2. SF 0,0.

Rhopalomastix WORKER/QUEEN: AC 10(2). PF 1,1; 0,1. TDC 2-4. SF 0,0. MALE: AC 12(gi). PF 1,1. TDC 0. SF 0,0.

APPENDIX 3**The archetypal formicid: a synthesis of plesiomorphies**

In their discussion of Mesozoic ants Wilson, Carpenter & Brown (1967) presented a description of what they considered the appearance of the archetypal worker ant would be. This appendix presents an expansion of their original synthesis to incorporate more recent findings and hypotheses.

WORKER

Aculeate hymenopteran with characters of the superfamily Vespoidea, and with the family Formicidae apomorphies given in the diagnosis (except retaining a short scape).

Mouthparts: Labrum a simple broad plate, broadly hinged to anteroventral clypeal margin and capable of reflexion over apex of labio-maxillary complex, not visible in full-face view when fully reflexed; distal (free) margin indented or cleft medially; without specialised peg-like setae. Prementum visible between maxillae at full retraction of labio-maxillary complex. Maxilla without transverse crest, without medial outgrowths; maxillary palp 6-segmented, no segments disproportionately elongated. Labium with paraglossae, without transverse crest preapically; labial palp 4-segmented. Mandible bidentate (apical plus one preapical tooth), short and curved, capable of closing tightly against clypeus; trulleum absent.

Clypeus: Median portion broad and simple, shallowly transversely convex, relatively long from front to back, without carinae; posterior margin broadly convex, not produced back between antennal sockets; posterior clypeal suture well defined. Anterior margin without an apron, without an isolated median seta.

Antenna and socket: Scape very short (only about 0.25 times length of funiculus); funiculus filiform and with 11 segments, long and flexuous, all segments of approximately equal size. Sockets circular, horizontal, exposed, some distance apart but not widely separated; located a short distance posterior to clypeal suture (*i.e.* not abutting or indenting the suture).

Head capsule: Eyes of moderate size, located close to or just behind midlength of side; anterior margins of eyes behind level of antennal sockets and well behind posterior clypeal margin. Ocelli present. Short simple frontal carinae present but without frontal lobes, without scrobes. Buccal cavity broad and broadly V-shaped. No psammophore. Head rounded, subcircular and somewhat longer than broad, not carinate ventrolaterally.

Prothorax: Large and simple, shallowly biconvex dorsally, lateral portion of sclerite large; promesonotal suture complete across dorsum, fully flexible so that pronotum and mesonotum are capable of movement relative to each other. Prosternum a simple triangular sclerite.

Mesothorax: Mesonotum differentiated into scutum and scutellum; margins sharply defined. Mesopleuron without a transverse sulcus (no differentiation into anepisternum and katepisternum). Mesosternal anterior transverse trench absent.

Metathorax: Metanotum present as discrete sclerite on dorsum, its margins sharply defined; spiracle lateral and opening freely to surface. Metapleuron margins sharply defined. Metapleural gland orifice a simple hole that opens laterally, located in lower posterior corner and low down, immediately above lower margin of metapleuron; orifice without cuticular flaps or flanges; bulla of gland small. Metacoxal cavities open, confluent with petiolar foramen. Metasternal process absent.

Propodeum (abdominal segment I): Rounded and unarmed between dorsum and declivity; without lobes at base of declivity (= propodeal lobes absent); spiracle circular, high on side and far forward, widely separated from apex of metapleural gland bulla. Petiolar foramen short, not extending as far forward as anterior margins of metacoxal cavities.

Petiole (abdominal segment II): Nodiform and erect, smaller than abdominal segment III, without tergosternal fusion; sessile (subsessile?) anteriorly, without an anteroventral process; at least weakly constricted posteriorly, moderately broadly articulated quite low down on anterior face of abdominal segment III; in posterior view tergite overlaps sternite, margins of both sclerites simple.

Abdominal segment III: Does not overhang petiole; slightly smaller than segment IV; spiracle visible, well forward on tergite; tergite slightly larger than, and laterally overlapping, sternite; without tegosternal fusion; helcium broad and set at about midheight of anterior face of segment, helcium sternite reduced and retracted, overlapped laterally by tergite, the latter with anterodorsal margin entire; sternite behind helcium without a transverse sulcus, the tergosternal sutures diverging evenly on each side posterior to the helcium.

Abdominal segment IV: Slightly larger than segment III, larger than each of segments V - VII; not vaulted; without differentiated presclerites, without girdling constriction; without tergosternal fusion; spiracle anterior, visible; stridulitrum absent.

Abdominal segments V - VII: Segment V > VI > VII; without differentiated presclerites; without tergosternal fusion; spiracle not visible, concealed by posterior margin of preceding segment; pygidium and hypopygium (tergite and sternite of VII) both simple, the latter without acidopore.

Sting: Strongly developed, exsertile, fully functional; furcula not fused to base of sting.

Legs: Coxae simple, procoxa larger than mesocoxa and metacoxa; metacoxae closely approximated; trochantellus present; femora and tibiae subcylindrical, without bullae of exocrine glands; spur formula 1,2,2, the protibial spur a strigil; mesotibial and metatibial spurs pectinate; tibiae and basitarsi without tractor setae or spines; metabasitarsal sulcus absent (?); each pretarsal claw with a preapical tooth.

Pilosity: Present, all setae simple.

QUEEN (GYNE)

Morphological details as for worker but fully alate when virgin; alitrunk larger than worker and with full vespid complement of flight sclerites; venation as male. Mesoscutum with notauli and parapsidal lines present.

MALE

Morphological details as for worker but male smaller than queen; fully alate and with full vespid complement of flight sclerites. Head smaller (relative to remainder of body) than in female castes, hypognathous, ventrally with a narrow genal bridge separating buccal cavity from foramen magnum. Eyes relatively larger than in females, ocelli conspicuous. Antenna with 13 segments, the scape short and the funiculus filiform. Mesoscutum with notauli and parapsidal lines present. Cerci present. Hypopygium simple; genitalia of moderate size, partially exserted.

VENATION

Of aculeate pattern; forewing with pterostigma present and with 9 closed cells (10 if pterostigma counted); marginal (= radial) cell closed and cross-vein 1r-rs present; cross-vein 2rs-m arising from Rs distal of 2r-rs; cross-vein cu-a arising from M+Cu (not from Cu). Hindwing with three closed cells; proximal as well as distal hamuli present on leading edge; jugal lobe present.

APPENDIX 4

Appearance of genus-rank taxa in the fossil record

The artificial form-genera **Attopsis*, **Imhoffia*, **Poneropsis*, and the ichnotaxon **Attaichnus*, are omitted. Subfamilies are listed in order of their first appearance in the fossil record. Genera not noted below are entirely recent, without representation in the fossil record; those genera known only from fossils are prefixed with a star-sign "*", whilst those lacking this prefix have both fossil and extant species.

***ARMANIINAE**

Cretaceous: **Archaeopone*, **Armania*, **Dolichomyrma*, **Khetania*, **Poneropterus*, **Pseudarmania*.

***SPHECOMYRMINAE**

Cretaceous: **Baikuris*, **Cretomyrma*, **Dlusskyidris*, **Haidomyrmex*, **Sphecomyrma*.

***BROWNIMECINAE**

Cretaceous: **Brownimecia*.

ANEURETINAE

Cretaceous: **Burmomyrma*.

Paleocene: **Aneuretellus*.

Eocene: **Paraneuretus*, **Protaneuretus*.

Oligocene: **Mianeuretus*.

FORMICINAE

Cretaceous: **Kyromyrma*.

Paleocene: **Chimaeromyrma*.

Eocene: **Camponotites*, **Glaphyromyrmex*, **Prodimorphomyrmex*, **Protoformica*, **Protrechina*.

Eocene-Recent: *Camponotus*, *Cataglyphis*, *Formica*, *Gesomyrmex*, *Lasius*, *Oecophylla*, *Plagiolepis*, *Prenolepis*.

Oligocene: **Leucotaphus*, **Sicilomyrmex*.

Miocene: **Pseudocamponotus*, **Tylolasius*.

DOLICHODERINAE

Cretaceous-Paleocene: **Eotapinoma*.

Paleocene: **Zherichinius*.

Eocene: **Asymphyomyrmex*, **Ctenobethylus*, **Pityomyrmex*.

Eocene-Recent: *Anonychomyrma*, *Dolichoderus*, *Iridomyrmex*, *Liometopum*.

Oligocene: **Elaeomyrmex*, **Emplastus*, **Leptomyrmula*, **Miomyrme*, **Petraeomyrmex*, **Protazteca*.

Oligocene-Recent: *Tapinoma*, *Technomyrmex*.

Miocene: **Alloimma*, **Elaphrodites*, **Euromyrmex*, **Kotshkorkia*.

Miocene-Recent: *Azteca*, *Leptomyrmex*, *Linepithema*.

ECTATOMMINAE

Cretaceous: **Canapone*.
 Eocene: **Electroponera*.
 Eocene-Recent: *Gnamptogenys*.
 Oligocene: **Syntaphus*.
 Miocene-Recent: *Rhytidoponera*.

PONERINAE

Paleocene: **Protopone*.
 Paleocene-Recent: *Pachycondyla*.
 Eocene-Recent: *Platythyrea*, *Ponera*.
 Oligocene: **Archiponera*.
 Miocene: **Ponerites*.
 Miocene-Recent: *Anochetus*, *Leptogenys*, *Odontomachus*.

***FORMICIINAE**

Eocene: **Formicium*.

MYRMECIINAE

Eocene: **Archimyrmex*, **Polanskiella*, **Prionomyrmex*.
 Oligocene-Miocene: **Ameghinoia*.

PSEUDOMYRMECINAE

Eocene-Recent: *Tetraponera*.
 Oligocene-Recent: *Pseudomyrmex*.

CERAPACHYINAE

Eocene-Recent: *Cerapachys*.
 Miocene-Recent: *Acanthostichus*, *Cylindromyrmex*.

PROCERATIINAE

Eocene: **Bradoponera*.
 Miocene-Recent: *Discothyrea*, *Proceratium*.

AGROECOMYRMECINAE

Eocene: **Agroecomyrmex*.
 Oligocene: **Eulithomyrmex*.

MYRMICINAE

Eocene: **Electromyrmex*, **Enneamergus*, **Eocenidris*, **Eoformica*, **Eomyrmex*,
**Nothomyrmica*, **Parameranoplus*, **Stigmomyrmex*, **Stiphromyrmex*.
 Eocene-Recent: *Aphaenogaster*, *Monomorium*, *Myrmica*, *Oligomyrmex*, *Pheidole*,
Stenamma, *Temnothorax*, *Vollenhovia*.
 Oligocene: **Cephalomyrmex*, **Hypopomyrmex*.
 Oligocene-Recent: *Cataulacus*, *Crematogaster*, *Podomyrma*, *Pogonomyrmex*, *Solenopsis*.
 Miocene: **Ilemomyrmex*, **Lonchomyrmex*, **Oxydris*, **Miosolenopsis*,
**Paraphaenogaster*, **Zhangidris*.
 Miocene-Recent: *Acanthognathus*, *Cephalotes*, *Nesomyrmex*, *Pheidologeton*, *Pyramica*,
Trachymyrmex.

ECITONINAE

Miocene-Recent: *Neivamyrmex*.

AMBLYOPONINAE

Miocene: **Casaleia*.
 Miocene-Recent: *Myopopone*.

PARAPONERINAE

Miocene-Recent: *Paraponera*.

Incertae sedis

Poneromorphs: **Cretopone* (Cretaceous), **Petropone* (Cretaceous).

*Paleosmithurinae: **Paleosmithurus* (Miocene).

Position unresolved: **Cariridris* (Cretaceous).

Subfamilies without a fossil record: AENICTINAE, AENICTOGITONINAE, APOMYRMINAE, DORYLINAE, HETEROPONERINAE, LEPTANILLINAE, LEPTANILLOIDINAE.

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INDEX OF FAMILY-GROUP NAMES

Names of the family and valid subfamily rank taxa are in ROMAN CAPITALS, all other names are in roman lower case. Taxa recorded only from the fossil record are prefixed with a star-sign "*".

- Acanthomyopsini 21, 94
 Acanthostichii 137
 Acanthostichinae 137
 Acanthostichini 33, 137
 Aenictii 146
 AENICTINAE 36, 146
 Aenictini 36, 146
 Aenictogitini 150
 AENICTOGITONINAE 37, 150
 Aenictogitonini 37, 150
 AGROECOMYRMECINAE 51, 181
 Agroecomyrmecini 51, 181
 Alloformicinae 265
 Amblyoponeridae 153
 Amblyoponii 153
 AMBLYOPONINAE 41, 153
 Amblyoponini 41, 153
 Anergatidini 63, 228
 Anergatini 62, 224
 ANEURETINAE 18, 79
 Aneuretini 18, 79
 Ankylomyrmini 66, 241
 Anomalomyrmini 39, 151
 Anonychomyrmini 19, 81
 Aphaenogastrini 63, 228
 APOMYRMINAE 39, 150
 Apomyrmini 39, 151
 Archaeomyrmecini 71, 255
 *Archiponerini 43, 159
 *Armaniidae 259
 *ARMANIINAE 73, 259
 *Armaniini 73, 259
 Attidae 196
 Attii 196
 Attinae 196
 attine group 56
 Attini 56, 196
 Axinidriini 19, 81

 Basicerotini 53, 183
 Blepharidattini 57, 201
 Brachymyrmecini 22, 100
 Bregmatomyrmini 22, 100
 *BROWNIMECIINAE 75, 262
 *Brownimeciini 75, 262

 Calyptomyrmecini 58, 202
 Camponoti 111
 Camponotidae 111
 Camponotides 111
 Camponotii 111

 Camponotinae 111
 Camponotini 26, 111
 Cardiocondyliini 68, 243
 Cataulacii 193
 Cataulacinae 193
 Cataulacini 55, 193
 Centromyrmecini 43, 158
 cephalotine group 55
 Cephalotini 56, 194
 Cerapachii 139
 Cerapachinae 137
 Cerapachyi 139
 CERAPACHYINAE 32, 137
 Cerapachyini 33, 139
 Cerapachysii 137, 139
 Cheliomyrmecini 35, 143
 Crematogastrii 237
 Crematogastrini 66, 237
 Cryptoceridae 56, 194
 Cryptocerii 194
 Cryptoceriini 194
 Cryptocerinae 194
 Cryptocerini 194
 Cyldromyrmecii 138
 Cyldromyrmecini 33, 138
 Cyldromyrmicii 138

 Dacetii 185
 dacetine group 53
 Dacetini 54, 185
 Dacetiti 54, 185
 Dacetonii 185
 Dacetoniini 185
 Dacetoniini 185
 Dimorphomyrmecini 108
 Dimorphomyrmicii 23, 108
 Discothyrinae 49, 178
 Dolichoderidae 80
 Dolichoderides 81
 DOLICHODERINAE 18, 80
 Dolichoderini 18, 81
 Dolichoderitae 81
 Dorylida 147, 148
 Dorylidae 147
 Dorylii 148
 DORYLINAE 36, 147
 Dorylini 36, 148
 Dorylitae 147
 dorylomorphs 31, 137
 Dorylozelini 43, 158
 Drepanognathini 43, 158

Ecitii 143
 Ecitini 143
 Ecitonii 142, 143
 ECITONINAE 34, 142
 Ecitonini 35, 143
 Ectatommi 173
 ECTATOMMINAE 45, 172
 Ectatommini 46, 173
 Epopostrumiti 54, 185
 Ericapeltini 42, 153
 Eucamponotinae 265
 Eudolichoderinae 265
 Eudorylinae 265
 Euformicinae 265
 Eumyrmicinae 265
 Euponerinae 43, 158
 Euponerini 158
 Eusphinctinae 33, 139
 Examblyoponini 42, 153
 Exeuponerinae 265

Formicae 93
 Formicaria 77
 Formicariae 77, 93, 126
 Formicarii 77
 FORMICIDAE 15, 77
 Formicii 126
 *FORMICIINAE 75, 262
 *Formiciini 75, 262
 Formicina 77
 FORMICINAE 20, 93
 formicine group 24
 Formicini 27, 126
 Formicitae 93
 Formicites 93
 formicomorphs 16, 79
 Formicoxenii 243
 formicoxenine group 65
 Formicoxenini 68, 243

Gesomyrmecini 23, 107
 Gesomyrmicinae 107
 Gesomyrmini 23, 108
 Gigantiopini 25, 111

*Haidomyrmecini 74, 261
 Harpegnathii 43, 158
 Harpegnathini 158
 Heteroformicinae 265
 HETEROPONERINAE 46, 176
 Heteroponerini 47, 177
 *Hypopomyrmeciti 59, 207

lasiine group 20
 Lasiini 21, 94
 Lenomyrmecini 64, 236
 Leptaleinae 31, 134

Leptanillidae 151
 Leptanillii 152
 LEPTANILLINAE 39, 151
 Leptanillini 40, 152
 LEPTANILLOIDINAE 35, 145
 Leptanilloidini 35, 146
 leptanillomorphs 38, 150
 Leptogenyi 158
 Leptogenyini 158
 Leptogenysii 43, 158
 Leptomyrmecii 81
 Leptomyrmecini 19, 81
 Leptothoracini 68, 243
 Liometopini 19, 81
 Lioponerini 33, 139
 Liomyrmecini 67, 241
 Lophomyrmecini 63, 228

Megalomyrmecini 59, 207
 Melissotarsii 257
 Melissotarsini 72, 257
 Melophorini 28, 130
 Meranoplini 67, 242
 Mesocamponotinae 265
 Metadorylinae 265
 Metaponini 71, 257
 *Miomymecini 19, 81
 Monomoriini 59, 207
 Mycetomyrmicinae 265
 Myrmecii 132
 Myrmeciidae 131
 MYRMECIINAE 29, 131
 Myrmeciini 29, 132
 Myrmecinini 71, 255
 myrmeciomorphs 28, 131
 Myrmecorhynchini 24, 109
 Myrmelachistini 22, 100
 Myrmicae 182
 Myrmicarii 242
 Myrmicariini 68, 242
 Myrmicidae 182
 Myrmicides 182
 Myrmicii 220
 MYRMICINAE 52, 182
 myrmicine group 61
 Myrmicini 61, 220
 Myrmicitae 182
 Myrmicites 182, 220
 myrmicomorphs 50, 181
 Myrmorhynchini 107
 Myrmoteratini 23, 107

Neoattini 265
 Nothomyrmecii 30, 133
 Nothomyrmeciinae 133
 Nothomyrmeciini 133
 Notostigmatini 27, 126

- Ochetomyrmicini 68, 243
 Ocymyrmicini 63, 228
 Odontomachidae 43, 158
 Odontomachii 158
 Odontomachinae 158
 Odontomachini 158
 Odontomachiti 158
 Oecophyllii 110
 Oecophyllini 25, 110
 Onychomyrmicini 42, 153
 Orectognathiti 54, 186

 Pachycondylinae 43, 158
 Pachycondylini 158
 Paleoattini 265
 Paleoponerinae 265
 *Paleosminthuridae 263
 *Paleosminthurinae 76, 263
 Paraponerii 178
 PARAPONERINAE 47, 178
 Paraponerini 48, 178
 Paratopulini 65, 237
 Phalacromyrmecini 54, 192
 Pheidolidae 228
 Pheidolii 228
 Pheidolini 63, 228
 Pheidologetini 59, 207
 Pheidologetonini 207
 *Pityomyrmecini 19, 81
 Plagiolepidii 100
 Plagiolepidini 22, 100
 Plagiolepisii 100
 Platythyrei 171
 Platythyreini 44, 171
 Plectroctenini 43, 158
 Podomyrmini 68, 243
 Polyrhachidini 26, 111
 Poneri 158
 Poneridae 156
 Ponerides 157
 Ponerii 158
 PONERINAE 42, 156
 Ponerini 43, 158
 Poneritae 157
 Ponérites 156, 158
 poneromorphs 40, 153
 Prenolepidii 22, 100
 Prenolepidini 100
 Prionomyrmecini 30, 132
 Proattini 58, 202

 Probolomyrmecinae 180
 Probolomyrmecini 49, 180
 Procamponotinae 266
 Proceratii 178
 PROCERATIINAE 48, 178
 Proceratiini 49, 178
 Prodolichoderinae 266
 Prodorylinae 266
 Promyrmicinae 266
 Proponerinae 266
 PSEUDOMYRMECINAE 30, 134
 Pseudomyrmecini 30, 134
 Pseudomyrmecidae 134
 Pseudomyrmidae 31, 134
 Pseudomyrmii 134
 Pseudomyrminae 134
 Pseudomyrmini 134
 Pseudoneoponerini 43, 159

 Reneini 42, 153
 Rhagiomyrmicinae 266

 Santschiellini 23, 108
 *Sicelomyrmicini 23, 108
 Solenomyrmini 68, 243
 Solenopsidii 207
 Solenopsidiini 207
 solenopsidine group 57
 Solenopsidini 59, 207
 Solenopsisii 207
 *Sphecomyrmidae 261
 *SPHECOMYRMINAE 74, 260
 *Sphecomyrmini 74, 261
 Stegomyrmecini 70, 254
 Stenammini 58, 202
 Stereomyrmicini 68, 243
 Stictoponerini 46, 173
 Strumigeniti 54, 186

 Tapinomini 19, 81
 Taraxoponerinae 266
 Teleutomyrmini 62, 224
 Tetramorii 224
 Tetramoriini 62, 224
 Thaumatomyrmecini 44, 171
 Thaumatomyrmii 171
 Typhlomyrmecini 46, 176

 *Zherichiniini 19, 81

INDEX OF GENUS-GROUP NAMES

Taxa recorded only from the fossil record are prefixed with a star-sign "*".

Acalama 246
 Acamatus 145
 Acanthidris 185
 Acanthoclinea 85
 Acanthognathus 54, 186
 Acantholepis 102
 Acanthomyops 22, 94
 Acanthomyrmex 71, 255
 Acanthoponera 47, 177
 Acanthostichus 33, 138
 Achantilepis 102
 Acidomyrmex 225
 Acrocoelia 238
 Acromyrmex 57, 197
 Acropyga 22, 94
 Acrostigma 99
 *Acrostigma 251
 Adelomyrmex 59, 206
 Adetomyrma 42, 153
 Adformica 128
 Adlerzia 61, 208
 Aenictogiton 38, 150
 Aenictus 36, 147
 Aeromyrma 215
 Aethiopopone 142
 Afroxydidris 61, 208
 Agraulomyrmex 23, 101
 *Agroecomyrmex 52, 181
 Alaopone 149
 Alfaria 174
 Alistruma 186
 Alloformica 28, 126
 *Alloiomma 19, 82
 Allomerus 61, 208
 Allopheidole 234
 Amauromyrmex 217
 Amblyopone 42, 154
 Amblyopopona 154
 Amblyopopone 154
 *Ameghinoia 30, 134, 370
 Ammomyrma 87
 Amyrmex 19, 82
 Anacantholepis 105, 268
 Anacanthoponera 177
 Ancylognathus 144
 Ancylognathus 265
 Ancyridris 59, 202
 Andraghnathus 104
 Aneleus 215
 Anergates 63, 224
 Anergatides 234
 *Aneuretillus 18, 80
 Aneuretus 18, 80

Anillidris 19, 83
 Anillomyrma 61, 208
 Anisopheidole 64, 228
 Ankylomyrma 67, 241
 Anochetus 44, 159
 Anomalomyrma 40, 151
 Anomma 149
 Anonychomyrma 19, 83
 Anoplolepis 22, 95, 267
 Anoplomyrma 123
 Antichthonidris 214
 Antillaemyrmex 253, 271
 Apedunculata 135
 Aphaenogaster 64, 229, 273
 Aphantolepis 92
 Aphomomyrmex 23, 101
 Aphomyrmex 101
 Apomyrma 39, 151
 Apomyrmex 227, 269
 Aporomyrmex 105
 Apsychomyrmex 206
 Apterocrema 240
 Apterostigma 57, 197
 Aratromyrmex 206
 Araucomyrmex 86
 Archaeomyrmex 255
 *Archaeopone 73, 259
 Archeatta 198
 *Archimyrmex 30, 133, 370
 *Archiponera 44, 172
 Arctomyrmex 207
 *Armania 73, 259
 *Armaniella 259
 Arnoldidris 188
 Arotropus 154
 Asemorhoptrum 205
 Asketogenys 190
 Asphinctanilloides 36, 146
 Asphinctopone 44, 160
 Aspididris 184
 *Asymphyomyrmex 19, 83
 Atopodon 95
 Atopogyne 239
 Atopomyrmex 70, 244
 Atopula 227
 Atta 57, 197
 *Attaichnus 201
 Attomyrma 229
 *Attopsis 73, 258
 Aulacomyrmex 125
 Aulacopone 47, 177
 Austrolasius 97
 Axinidris 19, 83

- Azteca 19, 83
 Aztecum 83
 *Baikuris 74, 261
 Bajcaridris 28, 126
 Bannapone 42, 155
 Baracidris 59, 207
 Barbourella 175
 Bariamyrra 59, 202
 Baroniurbania 102
 Basiceros 54, 183
 Belonopelta 44, 160
 Biconomyrra 87
 Bisolenopsis 218
 Blepharidatta 57, 201
 Bondroitia 61, 209
 Borgmeierita 190
 Bothriomyrmex 19, 84
 Bothroponera 166
 Brachyomyrmex 23, 101
 Brachyponera 167
 *Bradoponera 49, 179
 Bradyponera 164
 Bregmatomyrra 23, 102
 Bregmatomyrmex 102
 Brownidris 250
 *Brownimecia 75, 262
 Bruchomyrra 235
 Brunella 230
 Bryscha 101
 *Burmomyrra 18, 80
 Cacopone 169
 Calomyrmex 27, 112
 *Calyptites 261
 Calyptomyrmex 59, 202
 Campomyrra 123
 *Camponotites 27, 112
 Camponotus 27, 112
 Campostigmacros 100
 Camptognatha 144
 Campylomyrra 113
 *Canapone 46, 176
 Cardiocondyla 70, 244
 Cardiopheidole 234
 Carebara 61, 209
 Carebarella 61, 209
 Carebarelloides 209
 *Cariridris 263
 *Casaleia 42, 155
 Cataglyphis 28, 126
 Cataulacus 56, 193
 Caulomyrra 249, 272
 Cautolasius 97
 Centromyrmex 44, 160
 Cephalomorium 235
 Cephalomyrra 124
 *Cephalomyrmex 73, 258
 Cephalotes 56, 194
 Cephaloxys 189
 Cepobroticus 211
 Cerapachys 34, 139, 268
 Ceratobasis 183
 Ceratopachys 141
 Ceratopheidole 233
 Chalcoponera 175
 Chalepoxenus 70, 245
 Champsomyrmex 165
 Chapmanella 102
 Chariomyrra 124
 Chariostigmacros 99
 Chelaner 212
 Cheliomyrmex 35, 143
 Chelystruma 190
 Chimaeridris 64, 230
 *Chimaeromyrra 27, 121
 Chronoxenus 84
 Chrysapace 141
 Chthonolasius 97
 Cladarogenys 191
 Cladomyrra 22, 96
 Clarkistruma 186
 Clavanoda 135
 Codiomyrmex 189
 Codioxenus 189
 Colobocrema 240
 Colobopsis 113, 268
 Colobostruma 54, 186
 Commateta 175
 Concoctio 42, 155
 Condylodon 263
 Condylomyrra 113
 Conomyrra 86
 Conothoracoides 235
 Conothorax 235
 Coptoformica 128
 Corynomyrmex 213
 Cosmaecetes 149
 Cosmaegetes 149
 Crateropsis 215
 Cratomyrmex 231
 Creightonidris 54, 184
 Crematogaster 66, 238
 *Cretacoformica 264
 *Cretomyrra 74, 261
 *Cretopone 49, 180
 Croesomyrmex 253, 271
 Cryptocerus 194
 Cryptopone 44, 161
 *Ctenobethylus 19, 84
 Ctenopyga 138
 Cyathocephalus 195
 Cyathomyrmex 195
 Cyldromyrmex 33, 138

- Cyphoidris 59, 202
 Cyphomannia 198
 Cyphomyrmex 57, 198
 Cyrtomyrma 124
 Cyrtostigma 100
 Cysias 140

 Dacatria 59, 203
 Dacatinops 59, 203
 Daceton 54, 187
 Dacetum 187
 Dacryon 251
 Decacrema 238
 Decamera 103
 Decamorium 63, 225
 Decapheidole 234
 Dendrolasius 97
 Dendromyrmex 114
 Deromyrma 229
 Descolemyrma 200
 Diabolus 86
 Diacamma 44, 161
 Diagyne 218
 Diceratoclinea 85
 Dichothorax 253, 271
 Dichthadia 149
 Dicroaspis 59, 203
 Dilobocondyla 70, 245
 Dimorphomyrmex 108
 Dinomyrmex 114
 Dinoponera 44, 161
 Diodontolepis 110
 Diplomorium 61, 209
 Diplorhoptrum 218
 Discothyrea 49, 179
 Disolenopsis 218
 *Dlusskyidris 74, 261
 Dodecamyrmica 222
 Dodous 256
 Doleromyrma 19, 84
 Dolichoderus 19, 84
 *Dolichomyrma 73, 260
 Dolichorhachis 124
 Dolioponera 44, 162
 Dolophra 113, 268
 Donisthorpea 97
 Dorisidris 190
 Doronomyrmex 247
 Dorothea 206
 Dorylozelus 163
 Dorylus 37, 148
 Dorymyrmex 19, 86
 Drepanognathus 162
 *Drymomyrmex 112
 Dyclona 245
 Dyomorium 206
 Dysedrognathus 190

 Echinopla 27, 121
 Eciton 35, 143
 Ecphorella 19, 87
 Ectatomma 46, 173
 Ectomomyrmex 166
 Ectomyrmex 166
 *Elaeomyrmex 19, 87
 *Elaphrodites 19, 87
 Elasmopheidole 234
 *Electromyrmex 73, 258
 Electropheidole 235
 *Electroponera 46, 176
 Emeryella 174
 Emeryia 244
 Emeryopone 44, 162
 *Emplastus 19, 87
 Endiodioctes 98
 Eneria 192
 Engramma 92
 Enictus 147
 *Enneamerus 71, 257
 *Eocenidris 73, 258
 *Eoformica 73, 258
 Eomonocombus 127
 *Eomyrmex 73, 258
 *Eoponera 262
 *Eotapinoma 19, 88
 Epelysidris 61, 210
 Ephebomyrmex 223
 Epiatta 198
 Epimyrmex 248
 Epipheidole 233
 Epitritus 188
 Epixenus 212
 Epocus 211
 Epopostruma 54, 187
 Equessimessor 213
 Equestrimessor 213
 Ereboomyrma 215
 Eremnocystus 99
 Ericapelta 154
 Erimelophorus 131
 Eriopheidole 235
 Escherichia 180
 Eubothroponera 172
 Eucrema 239
 Eucryptocerus 195
 *Eulithomyrmex 52, 181
 Eumecopone 167
 Euophthalma 218
 Euponera 166
 Euprenolepis 23, 102
 Eurhopalothrix 54, 184
 *Eurymyrmex 19, 88
 Eusphinctus 142
 Eutetramorium 62, 220
 Evelynia 124

- Examblyopone 156
 *Exocryptocerus 195

 Florencea 124
 Forelifidis 216
 Forelius 19, 88
 Forelomyrmex 223
 Forelophilus 27, 121
 Formica 28, 127
 Formicina 128
 *Formicites 131
 *Formicium 76, 262
 Formicoxenus 70, 246
 Formila 264
 Froggattella 19, 88
 Fulakora 154

 Gaesomyrmex 108
 Gallardomyrma 235
 Gauromyrmex 70, 246, 269
 Geognomicus 203
 Gesomyrmex 24, 108
 Gigantiops 26, 111
 Glamyromyrmex 189
 *Glaphyromyrmex 28, 129
 Glyphopone 160
 Glyptomyrmex 200
 Gnamplogenys 46, 173
 Gonepimyrmex 249
 Goniomma 64, 230
 Goniiothorax 249, 272
 Granisolenopsis 218
 Gymnomyrmex 190

 Hagensia 167
 Hagiomyrma 123
 Hagioistigmacros 99
 Hagioxenus 225
 *Haidomyrmex 74, 261
 Halmamyrmecia 132
 Harnedia 195
 Harpagoxenus 70, 247
 Harpegnathos 44, 162
 Hedomyrma 124
 Hemioptica 123
 Hendecapheidole 235
 Hendecatella 215
 Heptacondylus 243
 Heptastruma 185
 Hercynia 201
 Heteromyrmex 206
 *Heteromyrmex 259
 Heteroponera 47, 177
 Hexadaceton 187
 Hincksidris 103
 Hiphopelta 168
 Holcomyrmex 211

 Holcoponera 139
 Holcoponera 174
 Holopone 144
 Hoplomyrmex 123
 Huberia 62, 220
 Hylidris 256
 Hylomyrma 62, 220
 Hypercolobopsis 117
 Hypochira 263
 Hypoclinea 85
 Hypocryptocerus 195
 Hypocylindromyrmex 139
 Hypopheidole 265
 *Hypopomyrmex 61, 219
 Hypoponera 44, 162

 Iberoformica 128
 Icothorax 253, 271
 Idrisella 217
 *Ilemomyrmex 59, 207
 *Imhoffia 28, 131
 Indomyrma 59, 203
 Irene 124
 Ireneella 225
 Ireneidris 213
 Ireneopone 250, 272
 Iridomyrmex 19, 88
 Irogera 204
 Ischnomyrmex 233
 Ishakidris 55, 192
 Isholcomyrmex 213
 Isolcomyrmex 213
 Isopheidole 234

 Janetia 223
 Johnia 125

 Karavaievia 118
 Karawajewella 85
 Kartidris 64, 231
 *Khetania 73, 260
 *Kotshkorkia 19, 89
 Kyidris 190
 *Kyromyrmex 28, 131

 Labauchena 218
 Labidogenys 191
 Labidus 35, 144
 Lachnomyrmex 59, 203
 *Lampromyrmex 211
 Laparomyrmex 241
 Lasiomyrma 59, 204
 Lasiophanes 22, 96
 Lasius 22, 96
 Latinoda 135
 Lecanomyrma 215
 Leiopelta 160

Lenomyrmex 65, 236
 Leonomyrma 245
 Lepidopone 160
 Lepisiota 23, 102
 Leptalaea 135
 Leptalea 135
 Leptanilla 40, 152
 Leptanilloides 36, 146
 Leptogenys 44, 163
 Leptomesites 152
 Leptomyrma 233
 Leptomyrmex 19, 89
 *Leptomyrmula 19, 89
 Leptopone 161
 Leptothorax 70, 247, 270
 Leptoxenus 265
 *Leucotaphus 28, 131
 Lilidris 219
 Limnomyrmex 250, 272
 Linepithema 19, 89
 Liometopum 19, 89
 Liomyrmex 67, 241
 Lioponera 140
 Lithomyrmex 154
 *Lithomyrmex 181
 Lobognathus 232
 Lobomyrmex 227
 Lobopelta 163
 Loboponera 44, 164
 *Lonchomyrmex 64, 236
 Loncyda 245
 Lophomyrmex 64, 231
 Lordomyrma 59, 204
 Loweriella 19, 90
 Lundella 221

Machaerogenys 163
 Machaeromyrma 127
 Machomyrma 61, 210
 Macromichoides 227
 Macromischa 252, 271
 Macromischoides 227
 Macropheidole 234
 Malacomyrma 95
 Manica 62, 221
 Manniella 118
 Martia 216
 Mayria 113
 Mayriella 61, 210
 Mayromyrmex 144
 Megalomyrmex 61, 210
 Megaloponera 166
 Megaponera 166
 *Megapterites 262
 Meia 250, 272
 Melissotarsus 73, 257
 Melophorus 28, 130

Meranoplus 68, 242
 Mesanoplolepis 107, 267
 Mesocrema 240
 Mesomyrma 246
 Mesoponera 167
 Mesostruma 54, 187
 Mesoxena 121
 Messor 64, 231
 Metacylindromyrmex 139
 Metapone 72, 257
 *Mianeuretus 18, 80
 Miccostruma 190
 Microbolbos 163
 Microdaceton 54, 187
 Micromyrma 91
 Mictoponera 174
 *Miomymex 19, 90
 *Miosolenopsis 73, 259
 Mitara 212
 Moellerius 197
 Monacis 85
 Monoceratoclinea 85
 Monocombus 127
 Monomorium 61, 211
 Morleyidris 124
 Myagrotaras 107
 Mycetagroicus 57, 199
 Mycetarotes 57, 199
 Mycetophylax 57, 199
 Mycetopurus 199
 Mycetosoritis 57, 199
 Mychothorax 247
 Mycocephurus 57, 199
 Myopias 44, 164
 Myopopone 42, 155
 Myrafant 253, 271
 Myrcidris 31, 135
 Myrma 123
 Myrmacantha 122
 Myrmacrhaphe 119
 Myrmamblys 114
 Myrmammophilus 253, 271
 Myrmapatetes 159
 Myrmaphaenus 117
 Myrmatopa 124
 Myrmecia 30, 132
 Myrmecina 71, 255
 Myrmecinella 254
 Myrmecocystus 22, 98
 Myrmecopsis 121
 Myrmecorhynchus 24, 109
 Myrmegis 197, 265
 Myrmelachista 23, 103
 Myrmensites 117
 Myrmentoma 115
 Myrmepinotus 118
 Myrmepomis 116

- Myrmespora 119
 Myrmetaerus 248
 Myrmeurynota 116
 Myrmex 135
 Myrmhopla 124
 Myrmica 62, 221
 Myrmicaria 68, 243
 *Myrmicites 259
 *Myrmicium 264
 *Myrmicium 264
 Myrmicocrypta 57, 200
 Myrmisolepis 118
 Myrmobrachys 115
 Myrmocamelus 115
 Myrmocladoecus 118
 Myrmodirachis 119
 Myrmogigas 114
 Myrmogonia 116
 Myrmolophus 116
 Myrmomalis 116
 Myrmonesites 117
 Myrmopalpella 119
 Myrmopelta 118
 Myrmophyma 115
 Myrmopiromis 118
 Myrmoplatypus 118
 Myrmoplatys 116
 Myrmopsamma 116
 Myrmopytia 117
 Myrmorhachis 122
 Myrmosaga 113
 Myrmosaulus 118
 Myrmosericus 115
 Myrmosphincta 115
 Myrmostenus 117
 Myrmotarsus 116
 Myrmotemnus 117
 Myrmoteras 23, 107
 Myrmothrinax 124
 Myrmothrix 115
 Myrmotrema 115
 Myrmoturba 114
 Myrmoxenus 70, 248
 Myrmoxxygenys 118
 Myrmus 225
 Myrtoteras 165
 Mystrium 42, 155
 Neaphomus 103
 Neivamyrmex 35, 145
 Nematocrema 239
 Neoamblyopone 154
 Neoatta 198
 Neoblepharidatta 216, 273
 Neoclystopenella 91
 Neocolobopsis 117
 Neocrema 240
 Neoforelius 88
 Neoformica 128
 Neomyrma 221
 Neomyrmamblys 117
 Neophyracaces 141
 Neoponera 168
 Neostruma 190
 Nesolasius 106
 Nesomyrmex 70, 249, 272
 Nimbamyrmex 215
 Nomamyrmex 35, 145
 Noonilla 263
 Nothidris 61, 214
 Nothomyrmecia 30, 133
 *Nothomyrmica 62, 224
 Nothosphinctus 142
 Notomyrmex 212
 Notoncus 24, 110
 Notostigma 27, 126
 Novomessor 229
 Nycteresia 144
 Nylanderia 104
 Nystalomyrma 229
 Ochetellus 19, 90
 Ochetomyrmex 70, 250
 Octella 218
 Octostruma 54, 184
 Ocymyrmex 64, 232
 Odontomachus 44, 164
 Odontomyrmex 256
 Odontopelta 163
 Odontoponera 44, 165
 Oecodoma 197
 Oecophthora 233
 Oecophylla 25, 110
 Oedaleocerus 218
 Oligomyrmex 61, 214, 273
 Onychomyrmex 42, 156
 Ooceraea 140
 Ophthalmopone 166
 Opisthopsis 27, 121
 Opisthoscyphus 175
 Orectognathus 54, 188
 Oreomyrma 221
 Ornatinoda 135
 Orthocrema 239
 Orthonotomyrmex 114
 Orthonotus 114
 Otomyrmex 193
 Overbeckia 27, 122
 Oxyepoecus 61, 216
 Oxygyne 238
 *Oxyidris 61, 220
 Oxyopomyrmex 64, 232
 Pachycondyla 44, 165

- Pachysima 136
 Paedalgus 61, 216
 Palaeatta 198
 *Palaeomyrmex 261
 *Palaeomyrmex 264
 *Paleosminthurus 76, 263
 Paltothyreus 166
 Papyrius 19, 90
 Paracolobopsis 117
 Paracrema 240
 Paracryptocerus 195
 Paraenictus 147
 Paraformica 127
 Paraholcomymex 212
 *Parameranoplus 68, 242
 Paramycetophylax 199
 Paramyrmamblys 119
 Paramyrmica 222
 Paranamyрма 218
 *Paraneuretus 18, 80
 Paranomopone 177
 Paraparatrechina 104
 Paraphacota 213
 *Paraphaenogaster 64, 236
 Parapheidole 234
 Paraplagiolepis 105
 Paraponera 48, 178
 Parapronopelta 42, 156
 Parasima 136
 Parasyscia 140
 Paratopula 65, 237
 Paratrechina 23, 104
 Parectatomma 174
 Parholcomymex 212
 Pedetes 165
 Pentastruma 189
 Pergandea 266
 Perissomyrmex 71, 256
 Peronomyrmex 70, 250
 Petalomyrmex 23, 104
 *Petraeomyrmex 19, 90
 *Petropona 49, 181
 Phacota 61, 217
 Phalacromymex 55, 192
 Pharaophanes 213
 Phasmomyrmex 27, 122
 Phaulomyрма 40, 152
 Pheidolacanthinus 233
 Pheidole 64, 232
 Pheidologeton 61, 217
 Phidola 234
 Phidole 233
 Phidologeton 217
 Philidris 19, 90
 Phrynoponera 44, 169
 Phyracaces 140
 Physatta 243
 Physocrema 239
 Pilotrochus 55, 193
 *Pityomyrmex 19, 90
 Plagiolepis 23, 105, 268
 Planimyрма 229
 Platystroma 190
 Platythyrea 45, 172
 Plectroctena 44, 169
 Podomyрма 70, 251
 Poecilomyрма 70, 251
 Pogonomyrmex 62, 223
 *Polanskiella 30, 134, 370
 Polyergus 28, 129
 Polyhomoa 190
 Polyrhachis 27, 122
 Ponera 44, 170
 Poneracantha 174
 *Ponerites 172
 *Poneropsis 44, 172
 *Poneropterus 74, 260
 Prenolepis 23, 105
 Prionogenys 163
 *Prionomyrmex 30, 133
 Prionopelta 42, 156
 Pristomyrmecia 132
 Pristomyrmex 71, 256
 Proatta 59, 204
 Probolomyrmex 49, 180
 *Procerapachys 141
 Proceratium 49, 179
 Procryptocerus 56, 196
 Prodicroaspis 204
 *Prodimorphomyrmex 24, 109
 Prodiscothyrea 179
 Proformica 28, 130
 Prolasius 22, 99
 Promeranoplus 204
 Promyopias 160
 Promyрма 241
 Promyrmecia 132
 *Promyrmecium 264
 *Propodomyрма 206
 Proscopomyrmex 191
 Prosopidris 245
 Protalaridris 54, 184
 Protamblyopone 154
 *Protamblyopone 155
 *Protaneuretus 18, 80
 Protanilla 40, 151
 *Protazteca 19, 91
 Protholcomymex 213
 *Protoformica 28, 130
 Protomognathus 70, 251
 *Protopone 44, 172
 *Protrechina 28, 131
 Psalidomyrmex 44, 170
 Psammomyрма 86

Pseudacantholepis 102
Pseudaphomomyrmex 23, 106
 **Pseudarmania* 74, 260
Pseudoatta 57, 200
 **Pseudocamponotus* 27, 125
Pseudocolobopsis 117
Pseudocryptopone 170
Pseudocryptomyrma 123
Pseudodichthadia 144
Pseudolasius 23, 106
Pseudomyrma 135
Pseudomyrmex 31, 135
Pseudoneoponera 168
Pseudonotoncus 24, 110
Pseudopodomyrma 251
Pseudoponera 167
Pseudosphincta 179
Pseudostigmatos 99
Pseudosysphincta 179
Pteroponera 170
Pyramica 54, 188

Quadristruma 192

Raptiformica 128
Recurvidris 66, 241
Renea 156
Rhachiocrema 240
Rhinomyrmex 113
Rhizomyrma 95
Rhogmus 149
Rhopalomastix 73, 258
 **Rhopalomyrmex* 105
Rhopalopone 174
Rhopalothrix 54, 185
Rhoptromyrmex 63, 225
Rhytidoponera 46, 175
Rogeria 59, 204
Romblonella 70, 251
Rossomyrmex 28, 130
Rostromyrmex 59, 205
Rotastruma 70, 252

Salticomorpha 266
Santschiella 24, 109
Schizopelta 213
Scrobopheidole 234
Scyphodon 264
Secostruma 62, 224
Selenopone 170
Semonius 91
Sericomyrmex 57, 200
Serrastruma 190
Serviformica 128
 **Shanwangella* 112
Shuckardia 150
 **Sicilomyrmex* 24, 109

Sifolinia 221
Sima 136
Simopelta 44, 170
Simopone 34, 141
 **Sinaphaenogaster* 230, 273
Smithistruma 189
Solenomyrma 246
Solenops 215
Solenopsis 61, 217
Sommimyrmex 222
Spalacomyrmex 160
Spaniopone 174
Spelaomyrmex 215
Sphaerocrema 240
Sphaeromessor 232
 **Sphecomyrma* 74, 261
Sphecomyrmex 149
Sphegomyrmex 149
Sphinctomyrmex 34, 142
Spinomyrma 87
Sporocleptes 215
Stegomyrmex 71, 255
Stegopheidole 235
Stenamma 59, 205
Stenomyrmex 159
Stenothorax 208
Stereomyrmex 70, 252, 273
Stictoponera 173
Stigmatos 22, 99
Stigmatomma 154
 **Stigmomyrmex* 70, 254
 **Stiphromyrmex* 71, 257
Streblognathus 44, 171
Strongylognathus 63, 225
Strumigenys 54, 191
Sulcomyrmex 227
Syllophopsis 213
Syllopsis 213
Symbiomyrma 222
Symmyrmica 246
Sympheidole 233
Synsolenopsis 218
 **Syntaphus* 264
Syntermitopone 168
Syscia 140
Sysphincta 180
Sysphingta 179

Talaridris 54, 185
Tammotoca 175
Tanaemyrmex 114
Tapinolepis 23, 107, 267
Tapinoma 19, 91
Tapinoptera 91
Tatuidris 52, 182
Technomyrmex 19, 92
Teleutomyrmex 63, 226

- Temnothorax 70, 252, 270
 Terataner 70, 253
 Teratomyrmex 22, 100
 Termitopone 168
 Tetheamyrmex 59, 206
 Tetramorium 63, 226, 269
 Tetramyrmex 249, 272
 Tetraponera 31, 136
 Tetrogmus 226
 Thaumatomyrmex 44, 171
 Theryella 205
 Thlipsepinotus 119
 Tingimyrmex 189
 Titusia 266
 Tomognathus 247
 Trachymesopus 168
 Trachymyrmex 57, 200
 Trachypheidole 235
 Trachyponera 168
 Tranetera 253
 Tranopelta 61, 219
 Tranopeltoides 239
 Trapeziopelta 164
 Triangulinoda 135
 Trichomelophorus 131
 Trichomyrmex 211
 Trichoscapa 190
 Tricytarus 70, 254
 Triglyphothrix 226
 Trigonogaster 241
 Turneria 19, 92
 *Tylolasius 28, 131
 Typhlatta 147
 Typhlomyrmex 46, 176
 Typhlopone 148
 Typhloteras 161
 Veromessor 231
 Viticicola 136
 Viticola 136
 Vollenhovia 206
 Vollenhovia 59, 206
 Vombisidris 70, 253
 Wadeura 168
 Wasmannia 57, 201
 Weberidris 202
 Weberistruma 189
 Wessonistruma 189
 Wheeleria 212
 Wheeleriella 212
 Wheelerimyrmex 210
 Wheeleripone 174
 Willowsiella 252, 273
 Woitkowskia 145
 Xenhyboma 213
 Xenoaphaenogaster 235
 Xenometra 244
 Xenomyrmex 70, 254
 Xeromyrmex 212
 Xiphocrema 239
 Xiphomyrmex 226
 Xiphopelta 168
 Xymmer 154
 Yavnella 40, 152
 Yunodorylus 141, 268
 Zacryptocerus 195
 Zasphinctus 142
 Zatapinoma 91
 Zealleyella 96, 267
 *Zhangidris 73, 259
 *Zherichinius 19, 92

POSTSCRIPT: genus **Archimymex*

After the pagination of this volume had been completed the following important paper was received: Dlussky, G.M. & Perfilieva, K.S. 2003. Paleogene ants of the genus *Archimymex* Cockerell, 1923. *Paleontological Journal* 37: 39-47 [English translation issue].

In it the authors show that **Ameghinoia* and **Polanskiella* are new junior synonyms of **Archimymex*, and that the latter is best placed in subfamily Myrmeciinae (see pp. 6, 30, 133 and 134). Inclusion of all three of the genus-rank names in Myrmeciinae is in agreement with the present author; inclusion of the new junior synonyms is in agreement with Ward & Brady (2003, in press).

